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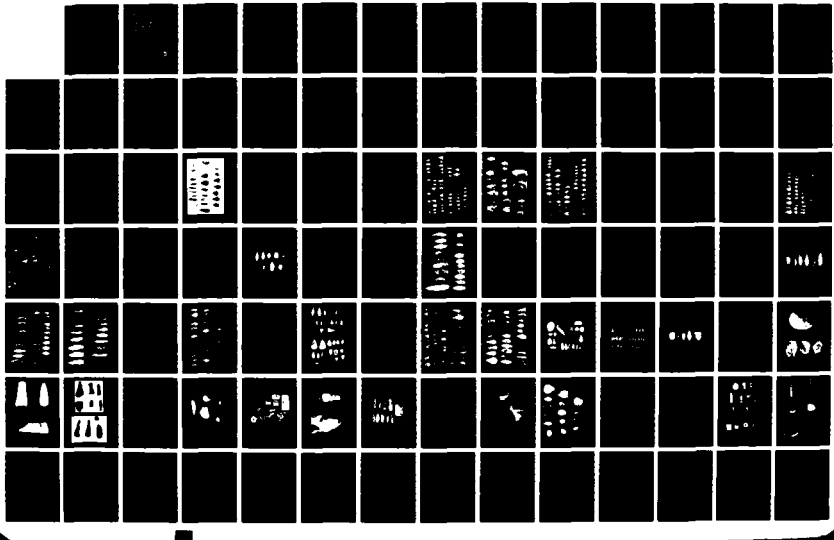

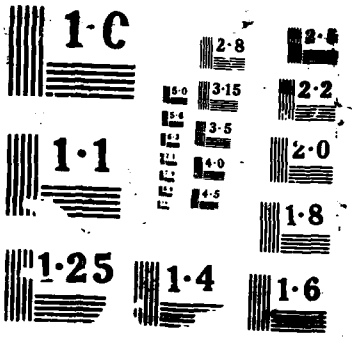
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TECHNICAL REPORT

CULTURAL RESOURCES COLLECTION ANALYSIS ALBENI FALLS PROJECT

NORTHERN IDAHO

US Army Corps of Engineers
Seattle District

North Pacific Division

MARCH 1987

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ABSTRACT

Cultural Resource Consultants, Inc. (CRC) examined ten artifact collections associated with the Albeni Falls Dam Project Area, in the spring of 1985 for the Seattle District, U.S. Army Corps of Engineers. The analysis emphasized projectile points and their stylistic similarities to specimens from adjacent areas in an effort to broadly outline a temporal sequence for the area. The stylistic comparison coupled with raw material types suggested shifting regional cultural influences from the Plateau and northwestern Plains as well as localized development. The area appears to have been occupied soon after de-glaciation, which occurred around 11-12,000 before present (B.P.). The subsequent stylistic sequence suggests continuous use since then. A variety of other lithic tools including flaked and ground stone was documented; bifacial tools, drills, gravers, scrapers, numerous pestles and mortars, bolas stones, nephrite adzes, notched pebbles or net weights, an atlatl weight, and several unique incised and carved stone objects represent a variety of activities. The collections also include artifacts representing Euroamerican presence in the area since the early 1800s; metal ax heads, glass trade beads, gun flints, clay pipes, glass bottles, military insignia, religious medals, buttons, trade tokens, Chinese coins and ceramic fragments. Finally, the collections have also provided information about potential site contents and additional site locations.

CULTURAL RESOURCES COLLECTION ANALYSIS

ALBENI FALLS PROJECT

NORTHERN IDAHO

By

C. J. Miss and L. Hudson

1987

Prepared by Cultural Resource Consultants, Inc., Sandpoint, Idaho
for the U. S. Army Corps of Engineers, Seattle District
Under Contract No. DACW67-85-M-0024

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Cultural Resource Consultants, Inc. (CRC) examined ten artifact collections associated with the Albeni Falls Dam Project Area in the spring of 1985 for the Seattle District, U.S. Army Corps of Engineers. The analysis emphasized projectile points and their stylistic similarities to specimens from adjacent areas in an effort to broadly outline a temporal sequence for the area. The stylistic comparison coupled with raw material types suggested shifting regional cultural influences from the Plateau and northwestern Plains as well as localized development. The area appears to have been occupied soon after de-glaciation, which occurred around 11-12,000 before present (B.P.). The subsequent stylistic sequence suggests continuous use since then. A variety of other lithic tools including flaked and ground stone was documented; bifacial tools, drills, gravers, scrapers, numerous pestles and mortars, bolas stones, nephrite adzes, notched pebbles or net weights, an atlatl weight, and several unique incised and carved stone objects represent a variety of activities. The collections also include artifacts representing Euroamerican presence in the area since the early 1800s; metal ax heads, glass trade beads, gun flints, clay pipes, glass bottles, military insignia, religious medals, buttons, trade tokens, Chinese coins and ceramic fragments. Finally, the collections have also provided information about potential site contents and additional site locations.

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Special acknowledgment and thanks go to Warren (Chuck) Peterson who helped us select the collections to be reviewed, for introducing us to collectors, for taking photographs of particular artifacts and for printing the photographs in this report.

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INTRODUCTION

The U.S. Army Corps of Engineers, Seattle District (Corps) contracted with Cultural Resource Consultants (CRC) in the spring of 1985 to collect data from the Albeni Falls Project Area in order to develop a comprehensive cultural resource management plan. Albeni Falls Dam is located in the northern panhandle of Idaho on the Pend Oreille River 2.5 miles east of Newport, Washington and 50 miles northeast of Spokane, Washington (Figure 1). The dam was built from 1951 through 1955 to regulate the level of Lake Pend Oreille and the Pend Oreille River for the production of hydroelectric power, flood control, navigation, fish and wildlife conservation and recreation.

Construction of the dam took place before the enactment of the National Environmental Policy Act of 1969 so that no Environmental Impact Statement (EIS) was required. In 1983 an EIS was prepared which clearly recognized the non-compliance of the Project with the National Historic Preservation Act of 1966 and the Archaeological and Historic Preservation Act of 1980. The Corps was charged with developing and implementing a management plan as part of a larger program applying to all operating projects of the Seattle District.

A major consequence of dam construction and an unavoidable product of its operation has been fluctuation in lake and river levels. Each year the pool level is adjusted seasonally between 2051' and 2062.5' above sea level (a.s.l.). Erosion from wave action and artificially maintained high pool levels has formed cutbanks and lagged cultural material from historic and prehistoric sites onto beaches exposed at low water from October until April.

In the spring of 1985, the Corps funded cultural resource surveys of the lake and river shorelines within the project area including both private and federally managed lands. These surveys documented a nearly continuous distribution of cultural material along both shores of the Pend Oreille River above Albeni Falls Dam (Gough and Boreson 1985, Miss and Hudson 1986). Sites were also frequent along the north shore of Lake Pend Oreille to the mouth of the Clark Fork River. Elsewhere on the lake sites were found where topography allowed and preservation occurred.

In an effort to obtain additional information about site content and location, a separate contract to examine and inventory local collections from the Albeni Falls Project Area was awarded to CRC. The goal was to acquire temporal, functional and locational information about sites. The local collections offered a rapid means for preliminary assessment of the culture history of the area and at least some of the sites. In addition, more sites not recorded by the recent surveys due to the vagaries of fluvial sedimentation and erosion could be located by collectors with detailed knowledge of the area.

Following a brief presentation of the physical and cultural setting of the project area, this report presents a discussion of

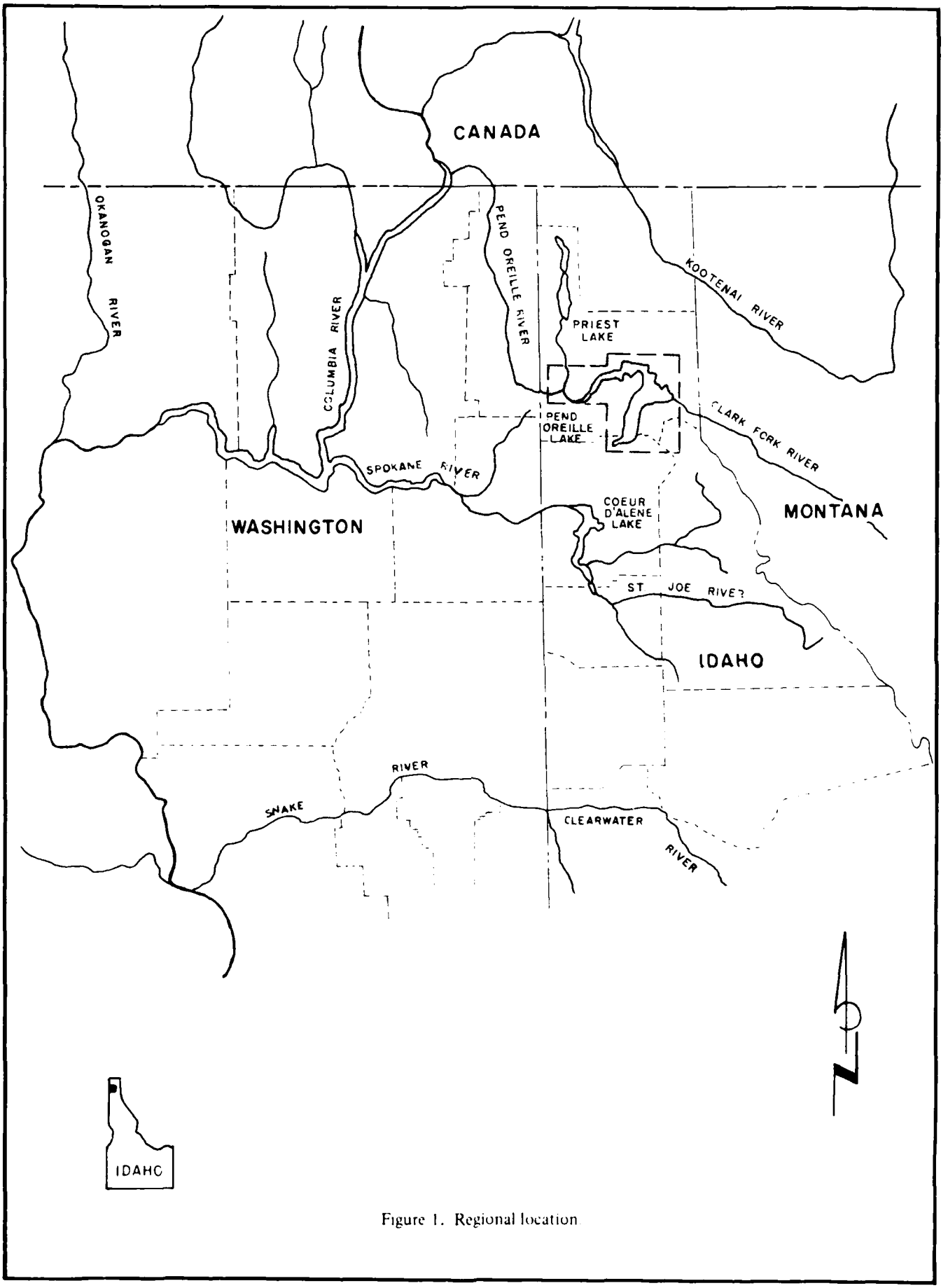

Figure 1. Regional location

artifacts from ten collections, including description of nearly 1000 projectile points. Collections were selected on the basis of geographic and temporal variation of sites represented by the artifacts, the presence of unique objects, and fortuitous circumstances. Ultimately, the work depended on the cooperation, goodwill and memory of the collectors.

PHYSICAL SETTING

Recent reports have discussed the physical setting of the Project Area and region in detail (Gough 1984, Landreth et al. 1985, Gough and Boreson 1985, Miss and Hudson 1986). Briefly, the area is surrounded by rugged, forested mountains and hilly terrain. The Pend Oreille River is broad and slow moving, flowing from east to west through a valley that is relatively steep sided except where interrupted by tributary drainages. The Selle Lowland, a continuation of the Purcell Trench and the most prominent valley adjacent to the area, is located on the north side of Lake Pend Oreille. Priest River flows into the Pend Oreille from the north and the Clark Fork River flows into the lake from the east. Other lowland valley relief is provided by smaller streams draining into the river from north and south while small creeks plunge down the steep slopes surrounding the lake (Figure 2). Elevation varies little within the project area differing by only eight feet between Clark Fork and Priest River, Idaho.

This landscape is directly related to late Pleistocene glaciation. Glacial ice dammed the Clark Fork River forming glacial Lake Missoula. Repeated failure of the ice dam beginning as early as 32,000 years ago resulted in massive westward flowing floods (Alden 1953, Savage 1967, Conners 1976, Waitt and Thorson 1983). Ice filled the lower Pend Oreille Valley above Newport forcing drainage south through Scotia Canyon and the Little Spokane River. Drainage to the north and the Columbia River began only as the last ice outliers wasted away. By about 12,000 B.P., glacial ice had withdrawn to the International Boundary and the present Pend Oreille drainage system was created.

There is little information available on post-glacial, Holocene geological processes and deposits in the project area. The presence of Holocene volcanic tephras has been used to date geological and cultural deposits in the region. Data most useful to this study comes from archaeological reports which include assessment of regional and local geologic processes. A broad regional sequence based on Mierendorf and Cochran (1984), Mierendorf (1984) and Waitt and Thorson (1983) includes 1.) deglaciation south of the International Boundary by about 12,000 B.P., 2.) extensive post-glacial aeoloian deposition separated by Mazama ash into two units and continuing as late as 4000 B.P., and 3.) stabilization of the sand deposits and the present landscape with continued local processes of fluvial deposition along stream banks and alluvial accumulation at tributary stream mouths.

Manifestation of this sequence within the project area is not clear and certainly the active fluvial system of the river and the unique influence of the large lake providing its headwaters requires

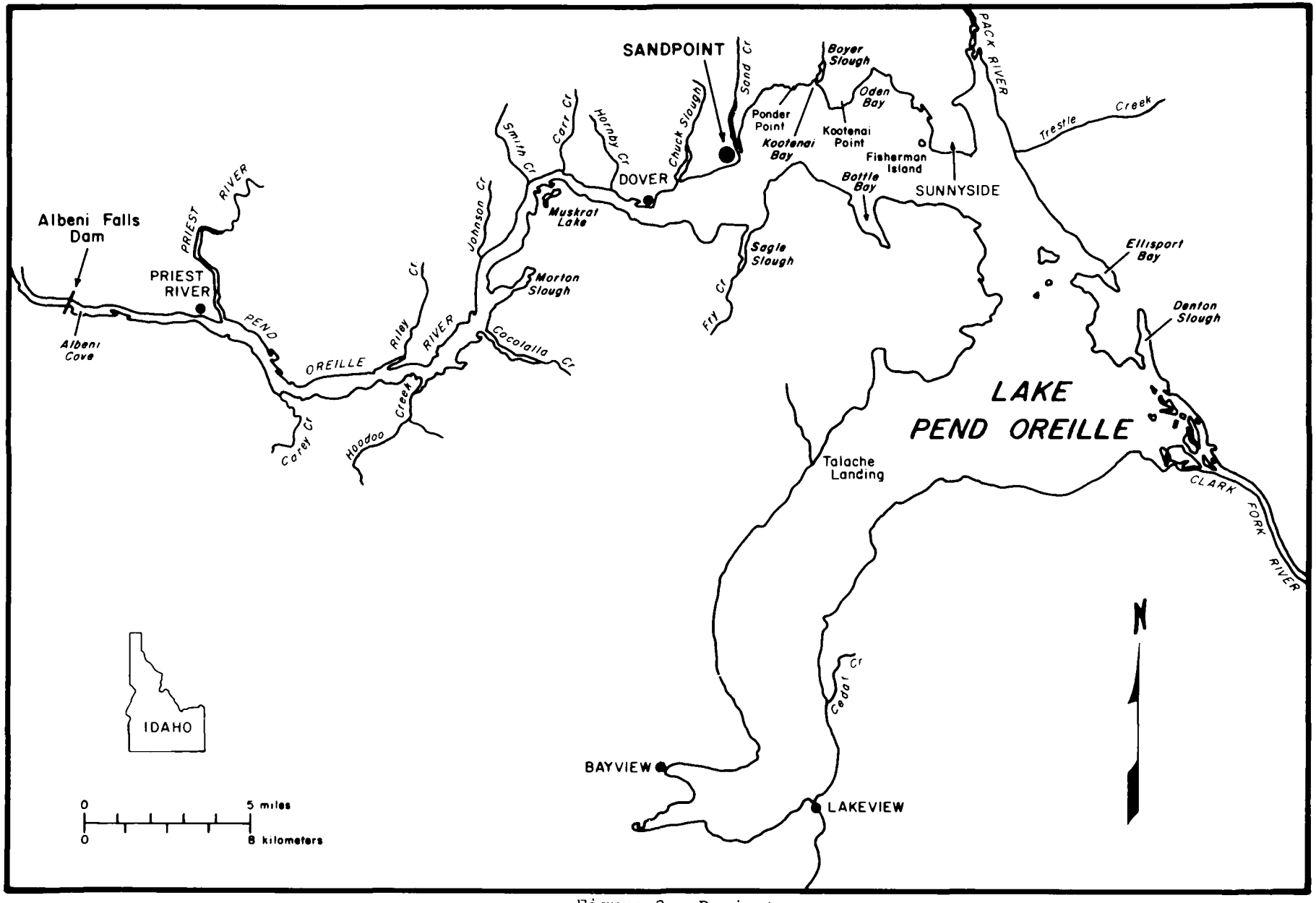

Figure 2. Project area map.

greater attention. Fluvial systems to the east on the Kootenai River and to the west on the upper Columbia appear to have downcut and stabilized to their present levels by 6700 B.P. as indicated by Mazama tephra (Campbell 1985, Mierendorf 1984).

Mazama ash has been identified in archaeological contexts at 10BR94 on the Pend Oreille River above Albeni Falls Dam suggesting similar chronology. Identification of material predating Mazama and postdating Glacier Peak ash (12,250-11,500 B.P.) at 10BR94 and at 10BR413, the Cabinet Landing site located just above the mouth of the Clark Fork River, and stylistic evidence in this report from projectile points suggest human use of the project area by at least 8500 B.P. and possibly as early as 10,000 B.P.

Pollen records give the clearest indication of past vegetation in the area (Mack, et al. 1978a, 1978b, Mack and Rutter 1983). Except for a short period immediately after the last glacial retreat, the area has always been forested. However, there has been variation in species composition and degree of openness corresponding to Holocene climate variation. The vegetation of the warmer, drier Altithermal 4-5,000 to 8,000 years ago was a less dense Douglas fir and pine forest. Essentially modern communities were established by 3000 B.P. Today, lands adjacent to the river and lake support primarily second growth coniferous forests where they have not been cleared for pasture, houses built or drainage prevents forest growth.

CULTURAL SETTING

Descriptions of the lifeways of the early Native American inhabitants of the area can be found in the journals of early fur traders and missionaries (Coues 1897, Tyrell 1969, White 1950, Chittenden and Richardson 1905). More recent ethnographies were compiled by Teit (1930), Ray (1936, 1939) and Smith (in Chalfant 1974). This portion of the Pend Oreille Valley was inhabited by the Salishan speaking Lower Pend Oreille or Kalispel who subsisted by means of a seasonal round designed to provide game, fish and vegetable products. Acquisition of the horse by the Kalispel in the early 1800s resulted in a greater orientation toward the Great Plains to the east with annual treks for bison hunting and trade (Anastasio 1972). Decline in the importance of local subsistence activities such as fishing, hunting and root gathering is thought to have been one side effect of this new activity. Thus the recorded ethnographic pattern with its eastern emphasis may be a relatively recent development. More important to the disruption of longstanding subsistence patterns may have been the affects of introduced European diseases prior to the arrival of even the earliest observers.

The Pend Oreille Trail along the north side of the Pend Oreille River and Lake, and the Clark Fork River was the major access route to the northern Plains for the Kalispel and other Plateau groups joining them for the hunt. It was also the route taken by early fur traders and missionaries, the first Euroamericans to enter the region in the early 1800s. For most of the nineteenth century, few Euroamericans

found reason to stay in the area. Traffic along the trail increased periodically as gold was discovered in nearby areas in the 1860s, 70s and 80s. Settlement did not seriously begin until the 1890s when mineral prospects around Lake Pend Oreille began to pay and value of the extensive timberlands was recognized. In response or, perhaps more correctly, in anticipation, railroads were built along the north shore of the lake and river following much the same route as the early trail.

ARCHAEOLOGICAL BACKGROUND

Few archaeological excavations have taken place in the area and most have been limited scale testing (Shiner 1953, Knudson et al. 1979, Hudson et al. 1980, Rice 1985). Other test excavations have been conducted by the U.S. Forest Service (10BR49), North Idaho College (Rocky Point), and the North Idaho Cultural Resource Information Center (10BR286), but remain unreported.

Archaeological literature for the project area is limited to the test excavation reports and the reports completed on the recent surveys of public and private lands on the lake and river in the project area (Gough and Boreson 1985, Miss and Hudson 1986). However there is a growing body of data for the region. In addition to the work at Cabinet Landing on the Clark Fork River (Landreth et al. 1985), excavations have recently been conducted downstream from the project area in the Calispell Valley (Thoms and Burtchard 1986). Specialized camas processing sites as well as habitation areas have been identified suggesting a longstanding use, at least 5000 years, of this starchy bulb. Other regional sources include the upland survey and testing project for a Bonneville Power Administration power line corridor from Libby Dam, Montana to the Albeni Falls Dam (Gough 1984); reports on major archaeological projects above and below Libby Dam on the Kootenai River (Roll 1982, Roll and Smith 1982, Thoms 1984); and recent publications on the Kettle Falls excavations (Chance and Chance 1982, 1985). Farther afield is work from the upper and middle Columbia River (Nelson 1969, Campbell 1985); the lower Snake River (Leonhardy and Rice 1970); and information from the northern Rocky Mountains and Plains (Frison 1978, Reeves 1983).

CONCLUSION

The northern Rocky Mountains have received increasing attention from archaeologists in recent years due almost entirely to cultural resource management projects in both the United States and Canada (e.g., Choquette 1981, Fladmark 1982, Hudson, et al. 1980, Gough 1984). New data resulting from improved survey methods are changing our perceptions of the region from one of a thinly inhabited transition zone between major cultural areas of Great Plains and Plateau. Processes of adaptation and systems of land use uniquely suited to the region are only beginning to be understood.

The Albeni Falls Dam project area potentially includes information of tremendous importance to the study of regional history and prehistory.

It includes a unique segment of a river cutting through a mountainous landscape. One of the most intriguing aspects of the area is the potential for tight chronological control for study of early Holocene geomorphic and cultural processes. Human colonization and adaptation to an early ice scoured landscape may be documented as well as subsequent use of the area. Questions about settlement and subsistence for the last 10,000 years in a mountainous environment may be addressed.

Examination of local collections was expected to help address very basic questions about time depth, regional contacts and historical influences. At the very least we would acquire evidence of the chronological and stylistic spectrum represented by projectile points from the project area. More optimistically we would be able to document the variety of prehistoric and historic artifacts and associate them with known sites. In this way we could begin to contribute to statements on site function as well as chronology.

ARTIFACT ANALYSIS

The large number of artifacts required an efficient method of classification to maximize the amount of information recorded in the short time available. We developed a system which emphasized projectile points over all other artifacts. The rational for this emphasis is straightforward; projectile points area easily recognized and eagerly sought making them the most common artifact in most collections and their analysis provides more information than could be derived form any other class of artifact. Styles are chronologically sensitive and to some extent reflect knowledge of or contact with cultural traditions of other areas.

The dimensions presented in Table 1 were designed to quickly describe the projectile points by means of significant morphological characteristics which are easily tabulated. Co-occurrence of the first five variables provides basic type definitions which can be associated with size to provide further distinction. The types may then be compared with historic forms from adjacent areas. We applied the analysis only to complete or very nearly complete specimens to further insure the examination of the greatest number of artifacts of unequivocal form.

Artifacts other than projectile points were classified primarily on the basis of morphology into traditionally recognized categories. Brief definitions are presented below. The intent was to provide an indication of the range of kinds of artifacts associated with the area.

Flaked Stone Artifacts

Biface - Thin, bifacially reduced object lanceolate, triangular, ovate or round in plan section, bi-convex or plano-convex in cross section. May be a technological precursor to another bifacial tool, or a finished product. Large, finely retouched bifaces were defined as "knives". Small, finely retouched triangular bifaces were defined as "preforms".

Uniface - Unifacially reduced object, same plan section as "biface". Cross section is plano-convex, triangular or trapizoidal.

Drill - Bifacially shaped artifact with long, thin working bit, often "key" shaped.

Burin - Spall from a biface removed with its long axis parallel to the edge of the parent artifact. Triangular in cross section with two surfaces retaining flake scars from bifacial reduction.

Graver - Flake with short, projecting bit formed by retouch or distinguished by use.

Scraper - Flake with unifacial retouch on all or a portion of the margin forming a steeply angled, convex or straight edge.

Spall/Tabular knife - Large, thin exterior or interior, cobble derived flake showing evidence of use and/or modification on all or a portion

TABLE 1

DIMENSIONS OF PROJECTILE POINT CLASSIFICATION

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

F - SIZE-MEASUREMENT (to nearest cm)
- 1 Length
- 2 Width
- 3 Thickness

G - MATERIAL TYPE
- 1 Siltstone
- 2 Argillite
- 3 Cryptocrystalline silica (CCS)
- 4 Obsidian
- 5 Quartz/quartzite
- 6 Other

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of the margin.

Spokeshave - Object with deeply concave edge segment formed by unifacial flake detachment or use.

Blade - Parallel sided flake whose length is at least twice its width.

Core - Primary lithic material with two or more flakes detached from the same platform.

Chopper - A flat cobble or cobble fragment with portions or all of an edge modified by unifacial or bifacial removal of overlapping flakes to form a sharp edge.

Modified flake - Includes flakes showing evidence of use and/or modification.

Ground/battered Stone

Hammerstone - Hand-sized, unmodified stones showing evidence of battering on one or more surfaces or locations.

Maul/Pestle - Large, cobble derived objects with evidence of battering or pounding use. Pestle is shaped by pecking and grinding.

Edge Ground Cobble - Small, flat cobbles with evidence of marginal grinding to the extent that a beveled facet is formed.

Net Weight - Pebble to cobble sized stones with evidence of pecked, flaked or ground grooves or opposing marginal notches intended to retain cordage.

Notched Pebbles - Flat pebbles with opposing bifacially or unifacially formed notches.

Abrader/Whetstone - Coarse grained stones with evidence of grooves or striations indicating they were used to reduce and shape wood or bone by means of abrasion.

Support Stone - Large cobbles used as supports for food processing; includes millingstones, anvil stones, and hopper mortar bases.

Palette Paint Stone - Flat stones with a surface formed by pecking or grinding showing evidence of pigment preparation. A prepared surface without pigment also qualifies.

Adze/Celt/Wedge - Object with rectangular cross and plan section with two opposing surfaces planes tapering to form a triangular lateral section. Artifact may be ground or flaked to achieve this form and may show evidence of battering, particularly on the proximal surface.

Incised Stone - Rock with evidence of intentional incising, often patterned and decorative.

Bead - Round, disk, and tubular stone, glass and possibly bone and shell beads were expected.

Other and Miscellaneous - Unusual artifacts were described and photographed. Artifacts of ambiguous form and unknown function were to be tabulated.

We were uncertain about the numbers and kinds of bone artifacts which might appear in the collections. Consequently, categories and formal definitions were not developed prior to analysis of the collections. Very little bone was observed other than several awls, unidentifiable mammal long bone fragments, and decorative carnivore and elk teeth.

Historical artifacts were noted and briefly described if sufficiently unique among the collections. No formal definitions were developed.

We attempted to photograph all of the artifacts tabulated or described. We were successful in this endeavor to varying degrees because of highly variable lighting conditions at the homes of the collectors. It was not possible in most cases to retake photographs if they were found to be inadequate after film developing because of time limitations and the difficulty of setting up the same plate from a collection of artifacts stored in a cigar box.

RESULTS

Application of the classification system required some modification to be practical and provide useful information. Emphasis remained on the projectile points, however, after collecting complete data on several hundred artifacts with only general provenience, we began to become more selective as styles and locations became redundant. Eventually only complete artifacts with site specific provenience were fully analyzed and estimates of the number and kinds of the remaining points were made.

The kinds of artifacts considered to be worth picking up by the collectors varied greatly. For example, Collection 10 included four fruit crates full of mauls, pestles and other battered and broken cobble tools. In contrast, Collection 4 contained only a single polished pestle, although many of the same areas were frequented by both collectors. Some collectors picked up a variety of broken and complete chipped stone tools as well as debitage and pieces of primary lithic material, while others were interested only in complete projectile points. Rather than tabulating the non-projectile point artifacts as originally proposed, we began to note only presence or absence.

Our goal was to describe as representative a sample of artifacts from the area as possible and to maximize the number of known site associations. The data presented here are not an inventory in the sense of actual tabulation of numbers of artifacts by collection. Appendix A presents projectile point data and other artifacts listed by collection. The photograph catalog provides a listing keyed to sites and collections. In the following discussion we have reproduced only representative photographs and discuss the projectile points by classification rather than by collection.

PROJECTILE POINT CLASSIFICATIONS

Data were collected for nearly 1,000 projectile points. The initial classification sort based on the first five dimensions of the analysis resulted in an unwieldy number of types, many with group frequencies so small they were of little use for comparison. We then chose to sort the data by the first three dimensions, outline, basal edge shape, and stem or lateral basal edge shape. The assumption was that these dimensions would best describe variation that is stylistically most sensitive.

We begin our discussion with a brief consideration of the classification procedure. As can be seen in Table 2 below, there is variability in the number of types defined and the sample size for each class.

Table 2
NUMBERS AND TYPES OF PROJECTILE POINTS

Class	Number of Projectile Points	Number of Types
Side notched	244	5
Corner notched	280	6
Basal notched	55	5
Stemmed	141	10
Shouldered lanceolate	38	7
Lanceolate	163	8
Total	921	

The number of types defined does not appear to be a function of the sample size. Medium sized samples for the stemmed and lanceolate group have the greatest numbers of types. The shouldered lanceolates have the smallest sample size and relatively numerous types. An impression rather than a statistically tested statement, is that the stemmed, shouldered lanceolate and, to some extent, the lanceolate points were the most difficult to rapidly assign to a class. This series forms a morphological continuum somewhat subjectively divided during the analysis. Other factors in other classes, such as the angle at which a corner notched style becomes basal notched, are also somewhat subjective. Other systems with additional dimensions and more precise measurement of angles and distances would undoubtedly result in more detailed descriptions and rigorous definitions.

Length was the single measurement consistently taken for all of the artifacts. This measurement along with the basic outline provides the organizational framework for assessment of the temporal span represented by the projectile points from the Albeni Falls Project.

TIME

Throughout North America, there is a reduction in size of projectile points through time correlated with changes in weaponry. Point size decreases from the large, early forms associated with thrusting spears through medium sized points used with the atlatl to the smallest forms used with the bow and arrow. Neck or basal width has been used as a more precise measure of these technological changes (e.g., Corliss 1972). This measurement decreases with the size of the shaft to which the point is hafted. Reduction in neck width is logically though not exclusively accompanied by reduction in overall size. Our measurement of length, then, documents the change in weaponry,

though in a manner less precise than neck width. Length does not, for example, distinguish re-sharpened points with wide necks or bases nor assess broad, squat forms. However, we regard it as a reliable indicator of general trends.

Changes in morphology also accompany size reduction through time. The changes are signatures for the shifts in weaponry and in subsistence activities which at least partially resulted from more efficient hunting technology. We find prehistoric chronologies divided into time spans on the basis of stylistic variation. Figure 3 presents chronologies from the regions surrounding the Albeni Falls Project area. The earliest phases or periods are characterized by large lanceolate or stemmed points. The intermediate phases are characterized by moderate sized lanceolate and stemmed forms gradually replaced by side notched and corner notched styles of similar size. The latest time spans are associated with small corner and side notched forms. The documented or proposed dates for these sequences vary among the regions.

A tripartite division similar to that of the northern Plains is perhaps the best organizational arrangement for this report. Early, middle and late periods approximate the technological stages of spear, atlatl and bow and arrow. Projectile points from the Albeni Falls Project area reflect the entire time span and spectrum of weaponry possible. Additional data on stylistic variation and raw materials suggests regional influences and further research questions.

Figure 4 presents the projectile point classes sorted by length. The figure clearly illustrates the tendency for side notched and lanceolate points to be correlated with small and large size extremes respectively. The relative frequencies of the sizes within the classes demonstrates the size trends more clearly, especially for the classes with smaller populations. Each class has representatives in each size range. The greatest percentage of the first four classes is in the medium range, while the highest frequencies for the last two are in the large category.

The numbers of small versus large points does not help to determine intensity of area use or population size through time; overall there are fewer small (17.2%) than large (23.3%) points, medium sized points make up the majority. Simply on this basis it would appear the middle period showed the greatest intensity of area use. More likely this is the result of the arbitrary nature of the size classification. The size categories encourage isolation of the very smallest and largest artifacts. Many transitionally sized points would likely be assigned to other time spans on the basis of style and neck width.

RAW MATERIAL

Raw material type supports a long chronological time span as well as suggesting relatively early, extensive regional contacts. In Figure 5 we have combined some of the raw material categories. Argillite and siltstones were generally dark, black, brown, gray or green, opaque materials distinguished from one another by graininess. We have combined

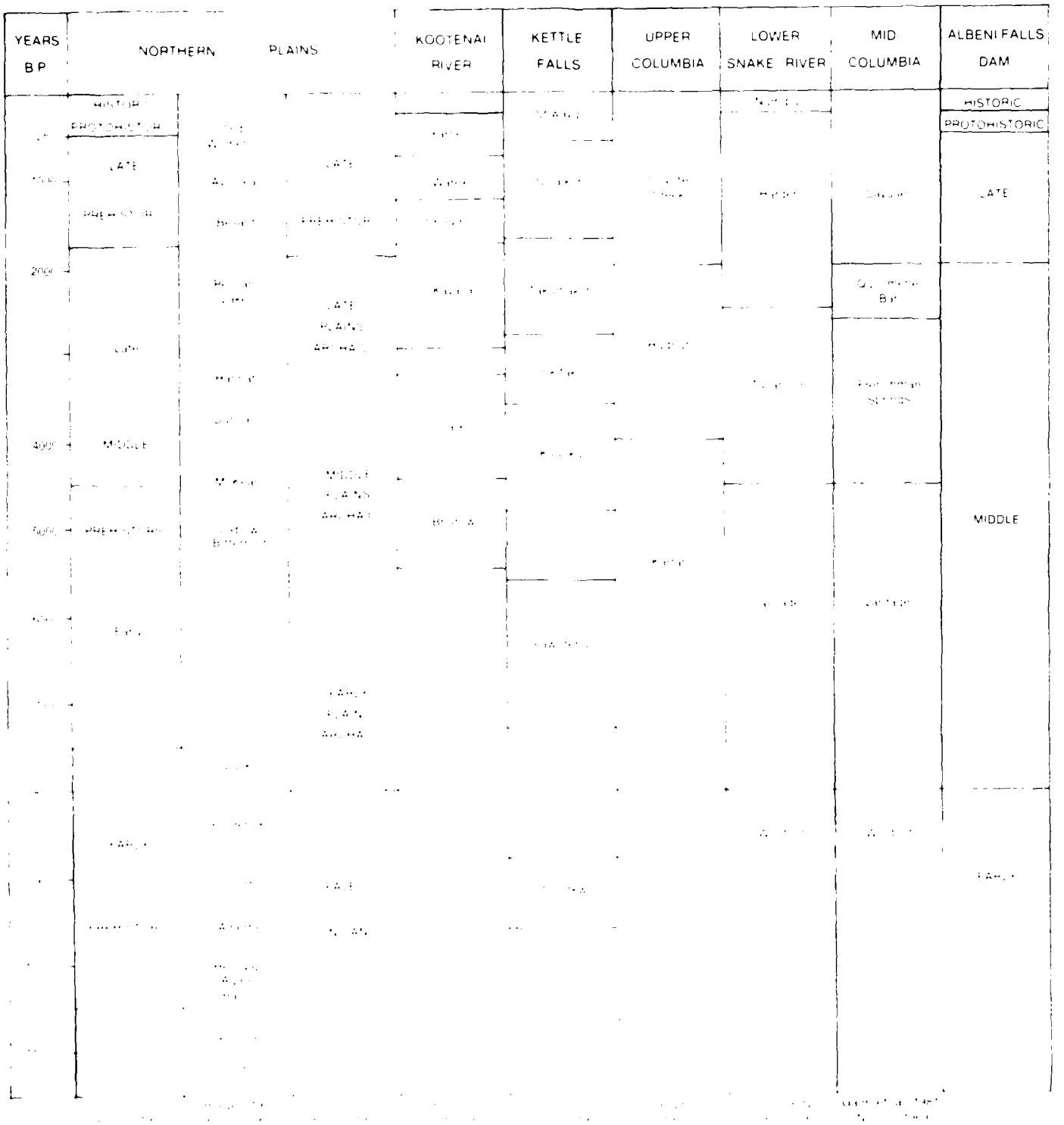


Figure 3. Cultural chronologies.

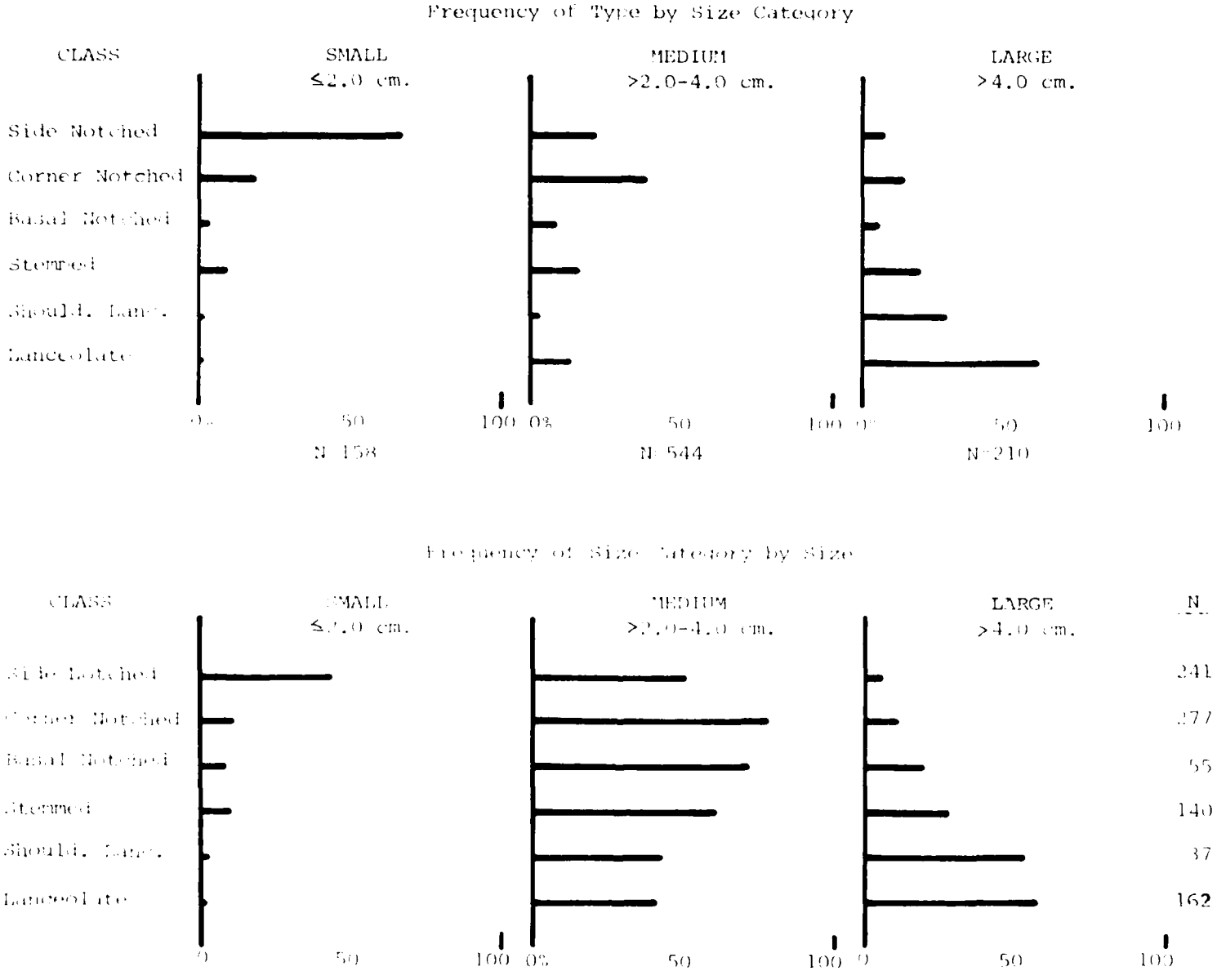


Figure 4. Projectile point classes sorted by size.

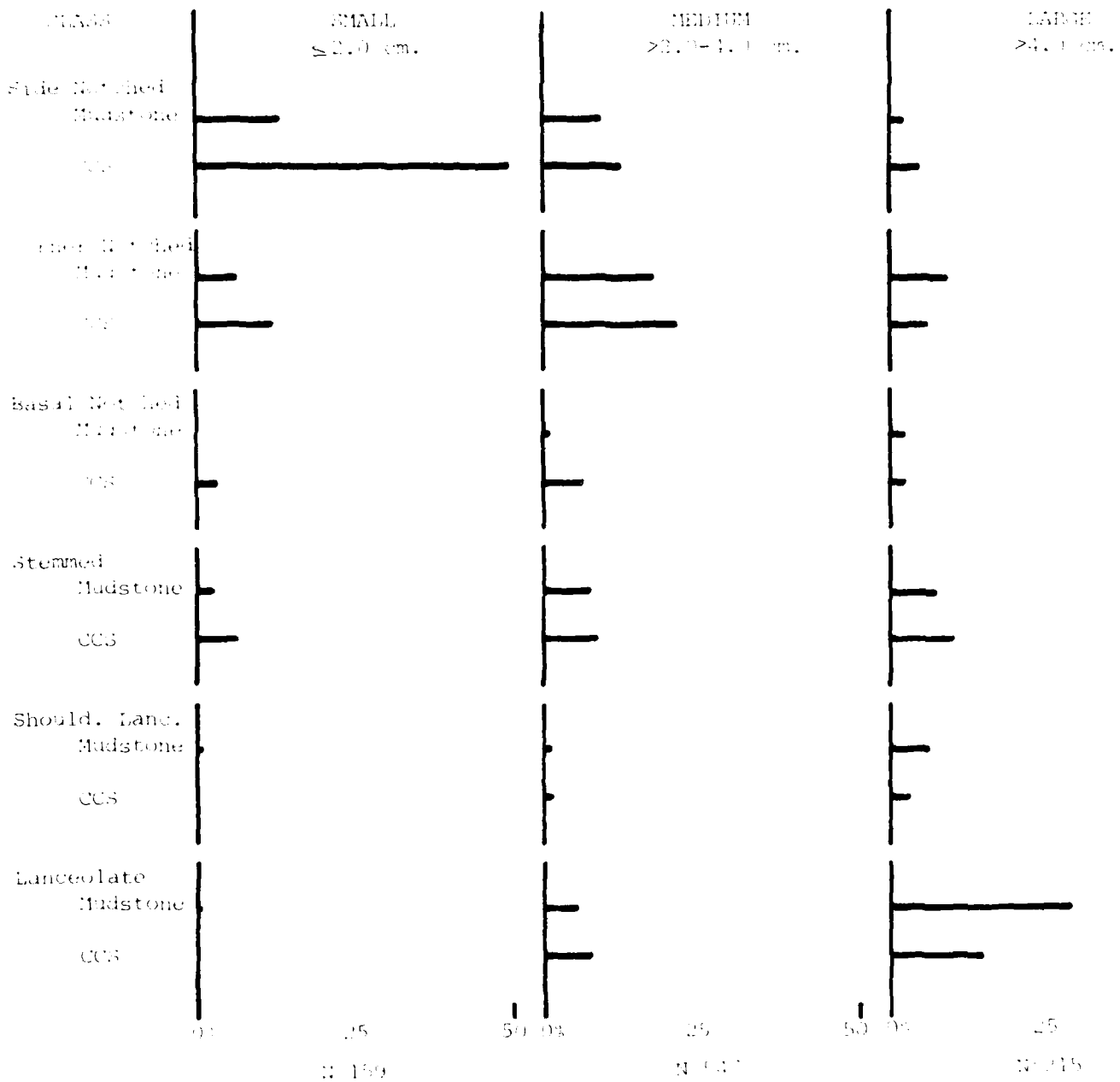


Figure 5. Relative frequencies of raw materials within size categories for projectile point classes.

them into the "mudstone" category because of their similar sources and flaking characteristics. They are available locally from Precambrian Belt series formations as well as from regionally known quarries in northern Idaho and British Columbia (Knudson 1976, Choquette 1981, Landreth et al. 1985). The identification of the lithology of these rocks is difficult without thin section analysis and association with known quarries problematic considering possible alternative unknown sources and the degree of variability in material quality from single sources. Because of these uncertainties, we regard the mudstone category as representing use of local resources, whether from bedrock quarry, fluvial cobble deposits or glacial till.

The cryptocrystalline silicas (CCS) included opaque and transluscent stone of a variety of colors including shades of grey, white, red and brown. Perhaps most prominent was a butterscotch opaque chert. The category also includes petrified wood whose source is probably the south and central Columbia Plateau. Quarry sources for other CCS materials have been identified in Montana and southern British Columbia (Choquette 1981, 1984; Reeves 1983). Sources also occur on the Columbia Plateau though classic quarry sites are less clearly identified. Closer CCS sources are not known although there has been speculation about possible locations south of the Pend Oreille River and on the southeast margin of the lake where limestone formations occur and were historically mined (Knudson 1979).

The "other" category contains quartzite and quartz crystal, obsidian and a miscellaneous collection of coarse grained materials. Artifacts of quartz crystal were also found in the McArthur Lake excavations at 10BY36 and 10BY11 and in recent excavations at 45PO138 near Usk, Washington. Quartz crystal is probably available in the uplands surrounding the project area; the Selkirk Mountains flanking Priest River and a documented quarry in British Columbia have been cited elsewhere (Choquette 1984). Obsidian does not occur in the area nor commonly in adjacent regions. Analysis has identified obsidian found in the region from Yellowstone (Choquette 1984:321), from northwest Wyoming and from the Wallowa Mountains in northeast Oregon (Landreth et al. 1985:Appendix D).

Following the lead of others in terms of both raw material use (Malouf 1956, Choquette 1981, Leonhardy and Rice 1970) and land use (Thoms 1984), we can postulate some very general trends for the study area. We might expect the lithic tools of the first people to enter the area after retreat of the glacial ice to more likely be from non-local sources. These people were transient big game hunters pursuing large mammals, possibly including bison and now extinct mammoth. They would have been highly mobile visitors to the area taking advantage of the most obviously available local raw materials. They were followed by settlers who gradually became less mobile in their subsistence pursuits as the post glacial climate ameliorated and technology changed with the introduction of the atlatl. We would then expect greater use of local and perhaps regionally available raw materials. Finally, as this and adjacent areas were firmly occupied and territories established, we might expect increased diversity in raw material types as trade networks grew.

As an example of the problems and prospects involved in the interpretation of lithic raw materials we offer the Cascade/Vantage Phase of the Columbia Plateau. One attribute of the phase is the use of dark, opaque raw material, particularly fine grained basalt, for the manufacture of characteristic lanceolate projectile points. Selection of dark, often basaltic cobbles for a variety of other tools and tasks is also characteristic. Both of these selections occur despite the availability of other, lighter colored materials with similar physical properties and technological capabilities. These materials are found in the same assemblages as the dark, opaque materials, but in lower frequencies than in later assemblages (e.g. Womack 1977, Lohse 1984, Miss 1984).

The selection is not clearly related to subsistence activities such as kinds of game, fishing versus hunting, more or less use of vegetable foods, or ways in which food was processed. We find the same plant and animal species and the same preparation processes, as determined from complexes of wear attributes, duplicated in later assemblages, often at the same site (see Lohse 1984). One possible explanation is found in the use of basalt for the production of blades by the Levellois technique for later reduction to lanceolate points. Perhaps only this material provided long enough blades consistently enough. The preferred raw material for blades became the preferred material for other tools as well as use was made of by-products of manufacture. Yet, it remains difficult to accept this explanation of the use of dark, fine and coarse grained lithic raw materials. When we can detect no obvious progression from earlier cultures and technologies, new approaches to the question are in order.

We suggest attention be turned to sources of raw material in future research. It would be of value to know, for example, the actual composition of cobble bar deposits on various reaches of the Columbia River, whether frequencies of raw materials in assemblages reflected availability, whether debitage and tools were derived from cobble or quarry sources and patterning of such factors through time. In addition Cascade age assemblages from excavations could be assessed in terms of these variables and their overall raw material composition so that the degree of variation within and among assemblages was more clearly demonstrated.

Turning to the data from the private collections, we find support for the general trends outlined, possible Columbia Plateau Cascade/Vantage Phase influences, and the suggestion of temporally significant raw material variation. Figure 5 presents relative frequencies of raw materials by projectile point classes within the major size groupings. Clearly the small side notched points are associated with CCS while the large lanceolate and shouldered lanceolate are more commonly opaque mudstones. As will be seen, the large lanceolate, shouldered lanceolate and stemmed groups contain the oldest styles. Of these the latter two groups are stylistically the oldest in the area and adjacent regions. The large stemmed points show a greater proportion of CCS as befits our postulated highly mobile early big game hunters. Similarly, the diverse lithic material of two points

estimated to be older than 8000 B.P. recovered by the McArthur Lake excavations support our proposed mode. One is made of petrified wood, probably from the southeastern Plateau, and the other is of Banff siliceous siltstone available in the eastern Canadian Rocky Mountains (Choquette 1984). A subsequent shift to large lanceolate styles manufactured of mudstone and other opaque dark stone can be interpreted as both increasing familiarity with local resources and manifestation of Cascade-like characteristics.

We note the similar proportions of mudstone and CCS material for the middle sized and presumably middle period projectile points. It is difficult to interpret this as our proposed "settling in" phase. However, support for riverine orientation and middle period trade networks (Choquette 1984) is found in the strong representation of the characteristic green Kootenai argillite among middle sized corner notched and lanceolate projectile points (Figure 6). Much of the strength of this argument rests on limited sources for this raw material in the Selkirk mountains above the north arm of Kootenay Lake. If there are additional sources for the material, then its use would appear to be a manifestation of even more localized raw material procurement. Similar arguments could be developed for other quarry sources as well. On technological grounds the platey Kootenai argillite would seem a more difficult material to work than some other regionally and locally available, finer grained materials including siltstones and cherts. The high frequency of Kootnai argillite may represent a cultural manifestation similar to that of Cascade material preference, in addition to cultural contact and trade networks.

The use of CCS through time is less clearly variable, aside from its predominance in the most recent late period. It is strongly represented in all periods by all styes and sizes of points. More precise projectile point type, size and raw material definitions coupled with source identification would obviously add to our knowledge and refine our model. At this point we cannot isolate raw materials other than the Kootenai argillite to the degree used by others to define chronologies and cultural groups (cf. Choquette 1984). This is not intended to disparage these formulations, only to point out that this examination of private collections does not have the chronological control to test that model.

PROJECTILE POINTS

The following sections briefly discuss the projectile point classes and their types. Photograph illustrations are intended to demonstrate the range of variability within a class. We suggest reference be made to all of the photographs for a better grasp of numbers and styles of projectile points as well as kinds of non-projectile point and historic artifacts. Basic data are presented by collection in Appendix A and tables from which the figures are derived in Appendix B.

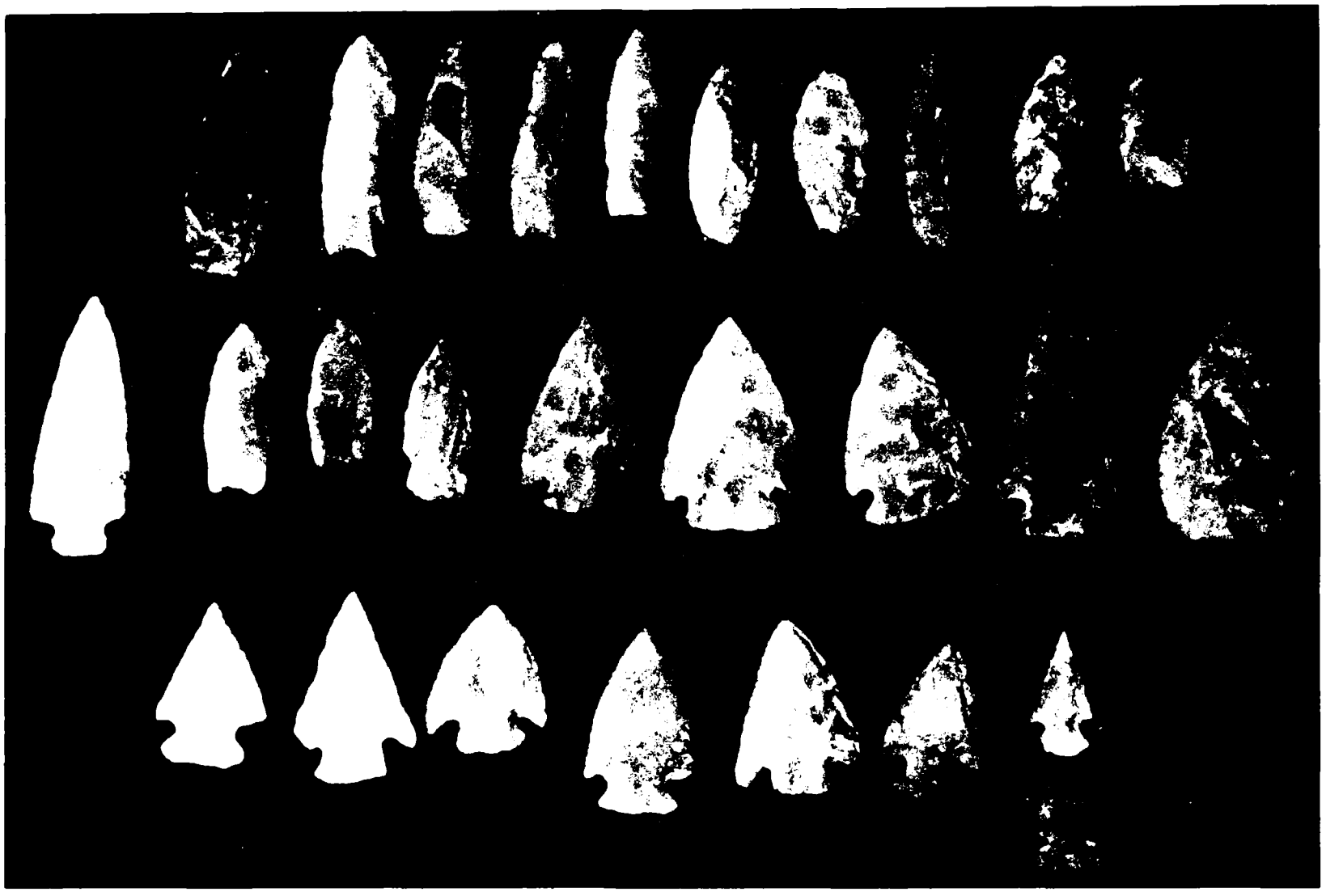


Figure 6. Kootenai argillite projectile points from Collection 10 (Roll 7:17).

Side Notched

These projectile points were divided into five types defined by the basal edge shape. The most common has a straight basal edge (type 110) and is followed in frequency by forms with concave (type 130) and convex (type 120) basal edges (Tables 3 and 4). The majority of the artifacts are small late occurring arrow points variously named Plateau, Plains or Desert side notched (Figure 7). Other of the small points are similar to the northern Plains' Avonlea with broad, concave to straight base and lowset, shallow notches (Figure 7, nos. 54-60) and Old Woman's side notched with straight to convex basal edge and shallow, wide notches (Figure 7, 66-75). The styles may indicate a significant late prehistoric geographic and/or cultural orientation. Reeves (1983:15) associates the Avonlea with a distinct Late Prehistoric subphase dating from about 1600 B.P. to 750 B.P. in the mountain valleys of northern Idaho, southern British Columbia, and the Kootenai River valley.

Low frequency of certain earlier historic types from the northern Plains, most notably Besant and Oxbow side notched forms, is of interest. The Besant point is a dart sized point with shallow, wide, low angled notches, and rounded basal corners and shoulders. Illustrated specimens (Reeves 1983:Figure 11; Roll and Smith 1982:Type 7) are morphologically more similar to medium sized points classified as corner notched or stemmed by this system (e.g., Figure 9, nos. 29, 30, 50-54). Low frequency of this form may be more the result of typological definitions and lack of chronological control.

The Oxbow side notched, also dart sized, has a distinct concave base with somewhat squared corners. It has been called "eared, indented base" (Thoms 1984:509) and likened to Great Basin Elko eared forms (Roll and Smith 1982:98). Figure 8, no. 5 is similar to Oxbow forms illustrated by Thoms (1984:162); several other specimens photographed had even more pronouncedly concave bases. The point has eastern origins and is contemporaneous with the Bitterroot or northern side notch on the northern Plains, at about 5500 B.P. (Frison 1978:83). Others note the Oxbow side notch does not occur west of the "Barrier Falls subarea", i.e. on the Columbia Plateau (Roll and Smith 1982:98).

Comparison to side notched styles of the Columbia Plateau is difficult, despite numerous chronological schemes, because of the lack of synthesizing statements concerned with stylistic projectile point variation. Lohse (1984) presents a recent and certainly the most metrically precise typology based on analysis of projectile points throughout the Plateau. However, side notched points are not categorized beyond the large Cold Springs form characteristic of the late Cascade Phase (7000-3500 B.P.) and the small Plateau side notch, noted as ubiquitous throughout western North America after 1500 B.P. (Lohse 1984:10,11). Dart sized points in the collections (Figure 8, nos. 1-20) are similar to the Cold Springs of the Plateau, the Northern or Bitterroot side notch of the northern Rocky Mountains (Swanson 1972), and the Salmon River side notch of the northern Plains (Frison 1978). The largest forms were likely used as hafted knives (Figure 8, nos. 21,22).

Table 3

Side notched projectile point types by length

Type*	Length (cm)							
	1	2	3	4	5	6	7	Total
110	1	77	56	19	4	1	-	158
Row%	0.6	48.7	35.4	12.0	2.5	0.6		
120	-	4	9	8	2	1	2	26
Row%		15.4	34.6	30.0	7.7	3.8	7.7	
130	-	23	25	1	3	1	-	53
Row%		43.4	47.2	1.9	5.7	1.9		
140	-	1	2	-	-	-	-	3
Row%		33.3	66.7	-				
150	-	-	-	1	-	-	-	1
Row%				100.0				
Total	1	105	92	29	9	3	2	241
Row%	0.4	43.6	38.2	12.0	3.7	1.2		

* For code key see Table 1

Table 4

Side notched projectile points by raw material types

Type*	Material*						
	1	2	3	4	5	6	Total
110	39	10	105	6	-	-	160
Row%	24.4	6.3	65.6	3.8			
120	8	2	15	1	-	-	26
Row%	30.8	7.7	57.7	3.8			
130	13	6	34	2	-	-	55
Row%	23.6	10.9	61.8	3.6			
140	-	-	3	-	-	-	3
Row%			100.0				
150	-	-	-	1	-	-	1
Row%				100.0			
Total	60	18	157	10	-	-	245
Row%	24.5	7.3	64.1	4.1			

* For code key see Table 1

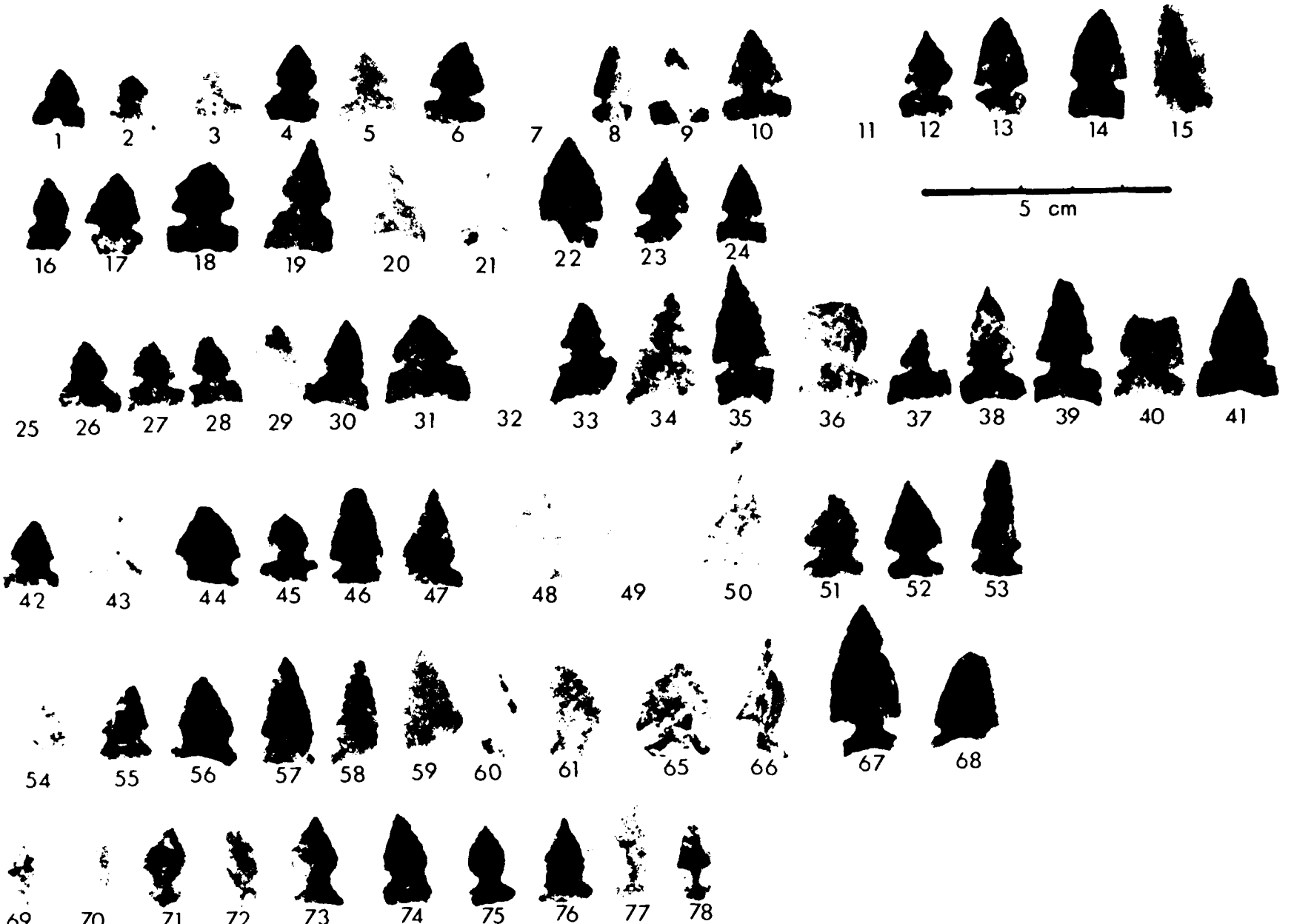


Figure 7. Side notched projectile points from Collection 2 (Roll 2:1), mouth of Cocolalla Creek, 10BR453, 454. Point dimensions: nos. 1-24 110, nos. 25-41 130, nos. 42-53 110, nos. 54-64 130, nos. 65-75 110.

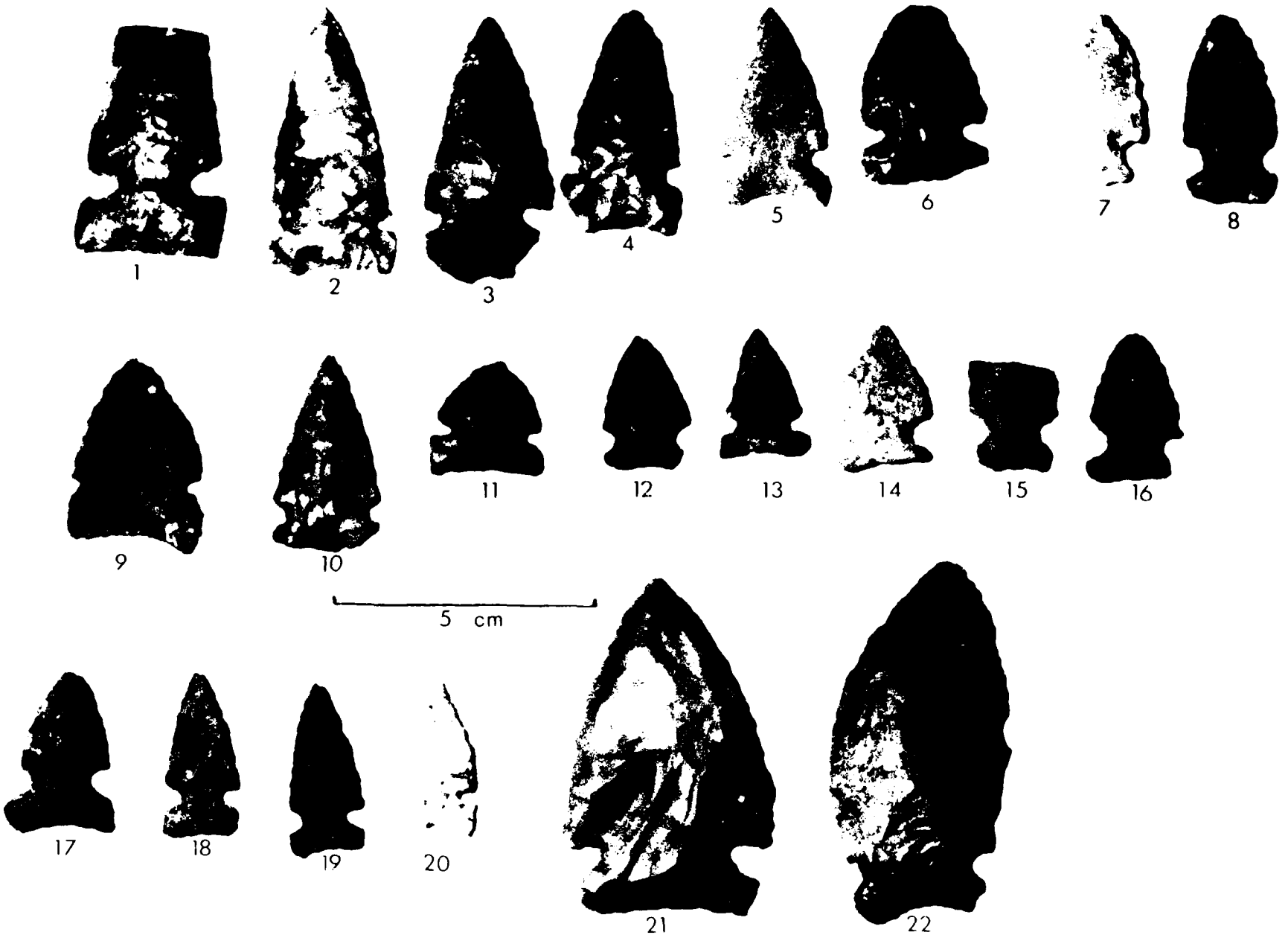


Figure 8. Large side notched projectile points from Collection 10 (Roll 7:24).

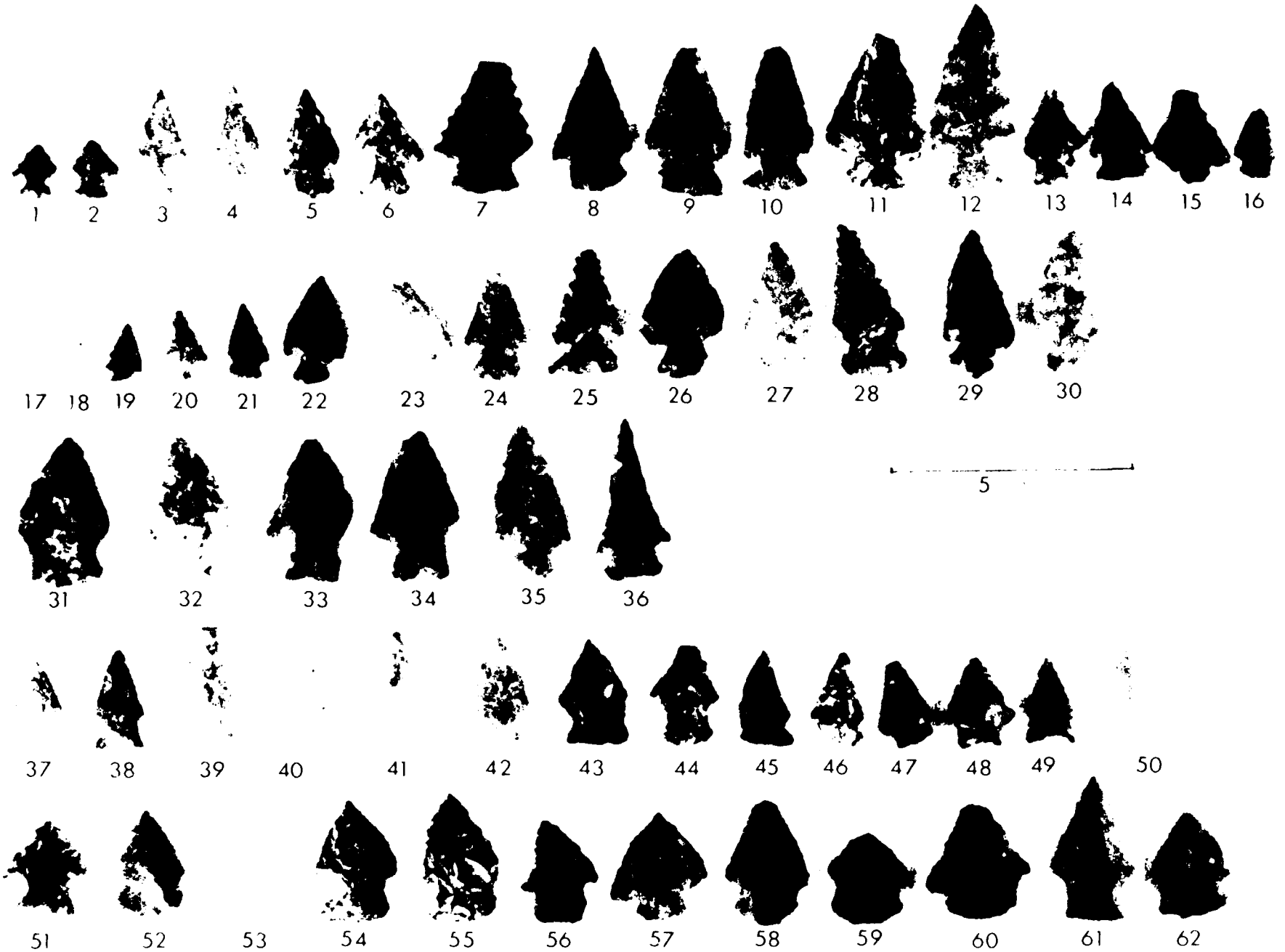


Figure 9. Corner notched projectile points from Collection 2 (Roll 2:5), mouth of Cocolalla Creek, 10 BR453, 454. Point dimensions: nos. 1-37 222, nos. 38-51 110, nos. 52-62 216.

As an aside, the data base used for type definitions by Lohse (1984) is available and could be used for assessment of these and other collections. A similar data base exists for the Great Basin (Holmer 1978). The potential for refinement of typologies on a much grander scale and precision in type assignment is certainly present.

Corner Notched

Tables 5 and 6 present the corner notched types by length and raw material. Corner notched points with expanding stems and straight or convex basal edges (types 211 and 222) are most common. Over half of the points are in the 3.0 cm category, the modal measurement for the three most common types, and of CCS material.

As with the side notched points the majority of the artifacts are small, late occurring arrow points. However the proportion of points less than 3.0 cm in length (62.5%) is not as great as that for the side notched points (82.2%) and the modal value is larger. Small corner notched forms are found contemporaneously with small side notched styles and variously called Columbia Plateau corner notched (Nelson 1969), Columbia corner notch B (Lohse 1984) and Head-smashed-in corner notch (Reeves 1983). The literature tends to simply lump small side and corner notched points together as late appearing forms.

Medium sized and larger forms are clearly recognized as middle period dart points. To the east we find the Pelican Lake series of corner notched points widespread from 2200 B.P. to 1600 B.P. The distribution to the west is less uniform and chronologically longer. Lohse (1984:12) associates the points with the southern Columbia Plateau and the period from 2000 B.P. to 4000 B.P. The same time span on the central and northern Columbia Plateau shows Rabbit Island stemmed forms more abundant. Evidence from these collections, which include few Rabbit Island styles and numerous corner notched forms, suggests a difference in typological sequence between the middle and upper Columbia River on the one hand and the southern Plateau and northern Rocky Mountains on the other. The cultural significance of the differences in terms of subsistence patterns and human groups is unclear. Within the study area the medium and large corner notched forms appear to be more similar to styles to the east (Figure 9, 10, 11). Also of note is the earlier discussed association of medium to large corner notched and lanceolate points with Kootenai argillite (Figure 6).

Basal Notched

Tables 7 and 8 present the five basal notched types sorted by length and raw material. The most common form has a straight base and expanding stem (type 312) followed in frequency by straight based, straight stemmed forms (type 311). The majority (72.2%) are 3.0 and 4.0 cms in length and of CCS material.

Many of the smaller artifacts (Figure 11, nos. 18-23) are similar to Plateau forms such as the Columbia stemmed series most common on

Table 5

Corner notched points by length

Type*	Length (cm) 1	2	3	4	5	6	7	8	Total
211	-	-0-	15 71.4	4 19.0	1 4.8	-	-	1 4.8	21
212	7 5.3	12 9.2	70 53.4	31 23.7	9 6.9	1	-	1 0.8	131
221	-	-	5 83.3	1 16.7	0 -	-	-	-	6
222	1 1.9	10 9.9	40 39.6	36 35.6	11 10.9	3 3.0	-	-	101
232	-	-	1 16.7	1 16.7	2 33.3	1 16.7	1 16.7	-	6
210	-	1 8.3	11 91.7	-	-	-	-	-	12
Total	8 (2.9)	23 (8.3)	142 (51.3)	73 (26.4)	23 (8.3)	5 (1.8)	1 (0.4)	2 (0.7)	277

* For code key see Table 1

Table 6

Corner notched points by raw material type

Type*	Material*						
	1	2	3	4	5	6	Total
211	7 33.3	1 4.8	12 57.1	1 4.8	-	-	21
212	40 30.5	21 16.0	68 51.9	1 0.8	1 0.8	-	131
221	1 16.7	3 50.0	2 33.3	-	-	-	6
222	30 29.7	7 6.9	59 58.4	5 5.0	-	-	101
232	2 33.3	2 33.3	2 33.3	-	-	-	6
210	6 50.0	3 25.0	2 16.7	1 8.3			12
Total	86 31.0	37 13.4	145 52.3	8 2.9	1 0.4		277

* For code key see Table 1

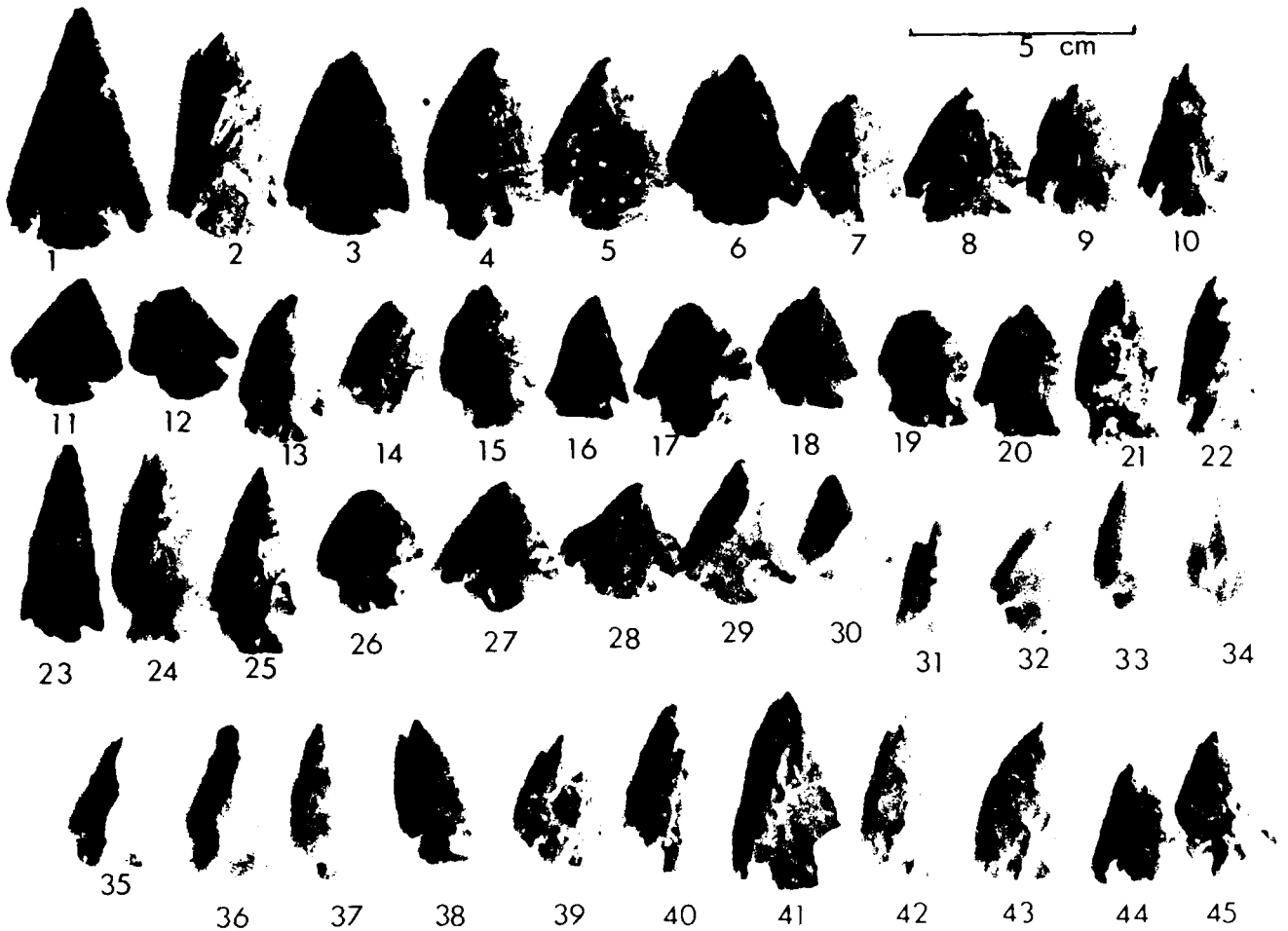


Figure 10. Basal and corner notched projectile points from Collection 2 (Roll 1:18), mouth of Cocolalla Creek, 10BR453,454. Point dimensions: no. 1 312, nos. 2-7 222, no. 8 212, no. 9 222, nos. 10 & 11 212, nos. 12 & 13 222, no. 14 212, no. 15 222, nos. 16-18 212, no. 19 222, nos. 20 & 21 212, no. 22 232. nos. 23-25 212, no. 26 211, nos. 27-32 221, no. 33 221, nos. 34-39 212, no. 40 211, no. 41 311, no. 42 321, no. 43 312, no. 44 311, no. 45 312.

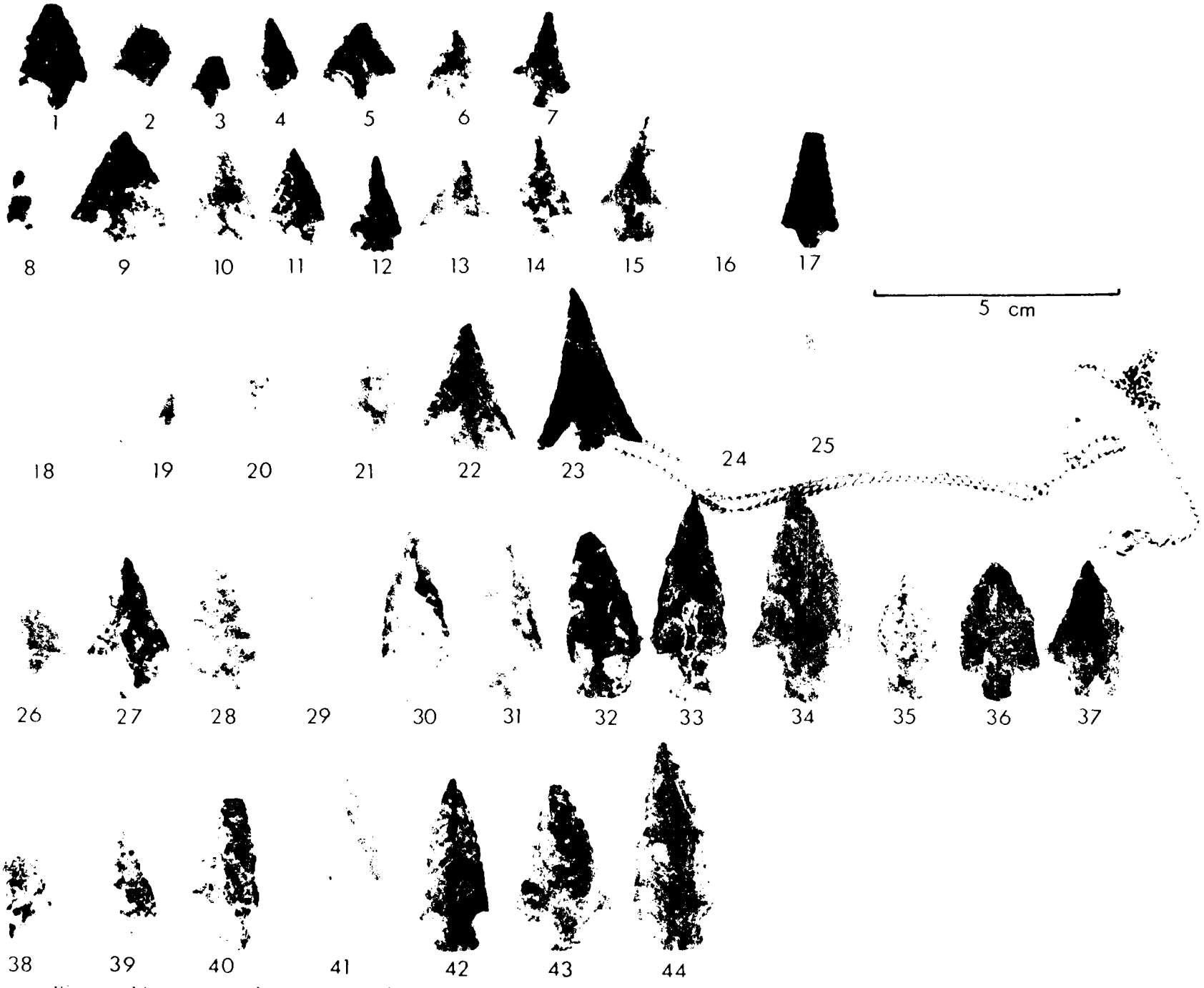


Figure 11. Stemmed, corner and basal notched projectile points from Collection 2 (Roll 2:3), mouth of Cocolalla Creek, 10BR453, 454. Point dimensions: nos. 1-7 453, nos. 8-17 411, nos. 18-24 312, no. 25 311, nos, 26-44 411.

Table 7

Basal notched points by length

Type*	Length (cm)					
	2	3	4	5	6	Total
311	2 14.3	4 28.6	6 42.9	2 14.3		14
312	2 7.7	5 19.2	15 57.7	4 15.4		26
321	1 20.0	3 60.0	1 20.0	-		5
322	-	1 14.3	2 28.6	4 57.1		7
332	-	-	2 100.0	-		2
Total Row%	5 9.3	13 24.1	26 48.1	10 18.5		54

* For code key see Table 1

Table 8

Basal notched points by raw material type

Type*	Material*					
	1	2	3	4	5	Total
311	2 13.3	1 6.7	12 80.0			15
312	-	4 15.4	22 84.6			26
321	-	1 20.0	4 80.0			5
322	1 14.3	1 14.3	5 71.4			7
332	1 50.0	-	1 50.0			2
Total	4 7.3	7 12.7	44 80.0			55

* For code key see Table 1

the lower Columbia River and found at least as far north as Kettle Falls (Lohse 1984). It has been suggested that these small points represent northward expansion from the southern Plateau in response to population growth in the last 2000 years.

Large basal notched forms with squared tangs are rare (Figure 10, no. 1). This very distinctive style, the Quilomene Bar basal notch, appears in Plateau assemblages about 2500 B.P. (Nelson 1969). It is often manufactured of basalt, and is associated by some with bison hunting on the Plateau (Schroedl 1973). In the collections we find styles with pronouncedly excurvate blade edges and often asymmetrical tangs (Figure 10, nos. 41-45) or forms with relatively shallow notches and broad, straight bases (Figure 12, 4 and 5). Many show more correspondence with formal definitions of Quilomene Bar and Pelican Lake corner notched forms. Overall this class is a somewhat awkward one for comparisons because of its small population and numerous types.

Stemmed

The stemmed class contained the greatest number of types (Tables 9 and 10). However the variables centralized on the straight based, straight stem edged form (type 411). No other type includes more than 10% of the sample. The class includes a broader range of sizes than we have yet encountered, larger projectile points in general, and a large proportion of mudstone. Again, the smallest forms are most similar to Columbia Plateau styles (Figure 11, nos. 1-17). A late temporal occurrence and lower Columbia River origin is invoked for these forms, particularly the Wallula rectangular stem (Lohse 1984).

We have noted the rarity of Rabbit Island forms. Instead, the styles follow the fashion to the east. Many of the medium sized type 411 points (Figure 11, nos. 34-37; Figure 12, 3) are similar to dart points from the Duncan-Hanna-McKean series of the northern Plains dating to the Middle Prehistoric period of that sequence (Frison 1978, Thoms 1984).

Many of the large stemmed forms have very obvious similarities to paleo-Indian points (Figure 13, nos. 1-4, 6, 8, 13). Morphologically similar styles are found to both the east (e.g., Pryor stemmed, Alberta) and west (cf. Windust, Lind Coulee). Without controlled excavation we cannot determine if some of these points were imported from other areas by later prehistoric residents.

However, there is evidence from the collections and from adjacent areas to suggest the points do indicate early use of the region. Farther afield we have two stylistically similar points recently reported from the eastern Rocky Mountains in Alberta and radiocarbon dated to 8550 ± 270 B.P. and 8050 ± 240 B.P. (Driver 1982). Similar points were also found at 10BY181 at McArthur Lake to the north of the project area. Similarity to Windust and Lind Coulee forms and the presence of bola stones in the collections suggest prehistoric use of the area may pre-date 9000 B.P. Finally, the numbers of points and repeated

Figure 12. Projectile points from the 1985 CRC survey of the Albeni Falls Dam Project.

Table 9

Stemmed points by length

Type*	Length (cm)									
	2	3	4	5	6	7	8	9	10	Total
411	3 3.6	35 41.7	22 26.2	12 14.3	5 6.0	5 6.0	2 2.4	-	-	84
412	-	7 58.3	5 41.7	-	-	-	-	-	-	12
513	1 10.0	3 30.0	2 20.0	3 30.0	1 10.0	-	-	-	-	10
421	1 33.3	-	-	-	1 33.3	1 33.3	-	-	-	3
422	-	2 50.0	-	-	-	-	1 25.0	1 25.0	-	4
423	-	-	-	1 50.0	1 50.0	-	-	-	-	2
431	-	-	1 33.3	2 66.7	-	-	-	-	-	3
432	-	3 42.9	2 28.6	1 14.3	1 14.3	-	-	-	-	7
451	-	-	1 50.0	-	-	1 50.0	-	-	-	2
453	9 69.2	3 23.1	-	-	1 7.7	-	-	-	-	13
Total	14 10.0	53 37.9	33 23.6	19 13.6	10 7.1	7 5.0	3 2.1	1 0.7	-	140

* For code key see Table 1

Table 10

Stemmed points by raw material type

Type*	Material*						
	1	2	3	4	5	6	Total
411	36 40.4	8 9.0	42 47.2	1 1.2	-	2 2.2	89
412	5 38.5	1 7.7	6 46.2	-	1 7.7	-	13
413	1 10.0	1 10.0	8 80.0	-	-	-	10
421	1 33.3	-	2 66.7	-	-	-	3
422	1 25.0	-	2 50.0	-	-	1 25.0	4
423	-	- 100.0	2	-	-	-	2
431	1 33.3	1 33.3	1 33.3	-	-	-	3
432	2 28.6	-	4 57.1	-	-	1 14.3	7
451	-	- 100.0	2	-	-	-	2
453	1 7.7	1 7.7	6 46.2	5 38.5	-	-	13
Total	48	12	75	6	1	4	146

* For code key see Table 1

Figure 13. Stemmed and shouldered lanceolate points from Collection 3 (Roll 3:1), 10BR522. Point Dimensions: no. 1 411, no. 2 421, nos. 3-5 411, no. 6 633, no. 7 523, nos. 8-12 513, no. 13 411, no. 14 513, no. 15 531, nos. 16-19 631, no. 20 633.

associations with the same sites and area by separate collectors suggest the points represent more than casual acquisitions by later prehistoric inhabitants.

Shouldered Lanceolate

This class contains the smallest number of artifacts and a relatively large number of types (Tables 11 and 12). Straight based, straight stem edged forms (type 511) are most common followed in frequency by straight based, contracting stemmed artifacts (type 513). As with the stemmed class, these points tend to be larger than the notched points with 86.6% greater than 3.0 cm in length. Within the class there is a tendency for the type 511 style to be smaller than the type 513.

A few of the smaller forms approximate the Nespelem Bar variant of the Rabbit Island stemmed series discussed by Lohse (1984). Other larger forms are similar to the recently defined Mahkin shouldered lanceolate, a style found frequently in Cascade age and later contexts on the upper Columbia River (Lohse 1984). A recent search of the literature for illustrated artifacts comparable to the shouldered lanceolate point in Figure 12 (no. 1) found analogues among artifacts from sites to the north (Grabert 1968, Turnbull 1977) and suggested the style might indicate northern contacts and influences (Miss and Hudson 1986). There are also many similarities to the Windust Phase artifacts (Rice 1972).

Lanceolate

Lanceolate styles with contracting proximal lateral edges and with straight (type 613, pointed (type 653), or convex (type 623) bases are most common with a significantly large number of straight based, straight proximal lateral edged (type 611) forms (Table 13, Figures 14 and 15). Type 611 tends to be smaller than the others while type 623 is larger. All of the types have greater proportions of mudstone (Table 14.)

While many of the large points appear to be similar to Cascade forms of the Columbia Plateau, few resemble the even earlier large paleo-Indian forms of the northern Plains or Rocky Mountains; e.g. Agate Basin, Hell Gap, Haskett or Birch Creek points (Frison 1978, Swanson 1972, Sargent 1973). Figure 16 (nos. 7, 8) shows specimens that may have been resharpened forms similar to these types. On the basis of the collections alone the earliest sequence appears to be more similar to the Windust-Cascade phases of the Plateau. Again, we require a stratified context in order to associate the artifacts with these early phases and to distinguish more precisely a chronological span of some 4,000 years. We do have very early style shouldered lanceolate and stemmed points that are striking in their resemblance to the illustrated Windust specimens (Rice 1972) suggesting a continuum from at least 10,000 B.P. through about 5000 B.P. The more recent data is somewhat uncertain; Cascade-like lanceolate points are found to persist in some areas to the north as late as 3000 B.P. (Fladmark

Table 11

Shouldered lanceolate points sorted by length

Type *	Length (cm)									
	2	3	4	5	6	7	8	9	10	Total
511	1 6.3	2 12.5	7 43.8	5 31.3	1 6.3	-				16
512		-	-	-	1 100.0	-				1
513		2 15.4	-	6 46.2	3 23.1	2 15.4				13
521			2 100.0	-	-	-				2
523			2 50.0	-	1 25.0	1 25.0				4
531			1 100.0	-	-	-				1
532				1 100	-	-				1
Total	1 2.6	4 10.5	12 37.6	12 31.6	6 15.8	3 7.9				38

* For code key see Table 1

Table 12

Shouldered lanceolate projectile types by material

Type *	Material *						
	1	2	3	4	5	6	Total
511	9 56.3	2 12.5	4 25.0			1 6.3	16
512	-	-	1 100.0			-	1
513	8 61.5	1 7.7	4 30.8			-	13
521	-	-	2 100.0			-	2
523	1 33.3	1 33.3	1 33.3			-	3
531	-	-	1 100.0			-	1
532	-	-	1 100.0			-	1
Total	18	4	14			1	37

* For code key see Table 1

Table 13

Lanceolate points by length

Type*	Length (cm)											
	2	3	4	5	6	7	8	9	10		N	$\bar{x}$
611	1 3.7	4 14.8	6 22.2	9 33.3	2 7.4	3 11.1	1 3.7	1 3.7	-	27	27	4.79
613	-	6 13.3	12 26.7	11 24.4	8 17.8	4 8.9	1 2.2	2 4.4	1 2.2	45	46	5.17
621	-	-	1 25.0	1 25.0	2 60.0	-	-	-	-	4	4	5.18
622	-	1 33.3	-	1 33.3	-	1 33.3	-	-	-	3	3	5.00
623	-	-	8 33.3	8 33.3	5 20.8	1 4.2	2 8.3	-	-	24	30	5.3
631	-	3 33.3	3 33.3	2 22.2	-	-	1 11.1	-	-	9	11	4.45
632	-	-	1 100.0	-	-	-	-	-	-	1	1	4.0
633	-	-	1 20.0	-	3 60.0	-	1 20.0	-	-	5	5	6.0
653	-	5 11.4	16 36.4	11 25.0	3 6.8	4 9.1	1 2.3	3 6.8	1 2.3	44	44	5.1
Total	1 0.62	19 11.73	48 29.63	43 26.54	23 14.2	13 8.02	7 4.32	6 3.70	2 1.23	162		

* For code key see Table 1

Table 14

Lanceolate points by material type

Type*	Material							
	1	2	3	4	5	6	Total	Col.%
611	10 37.0	7 25.9	8 29.6	-	-	2 7.41	27	16.0
613	16 34.8	12 26.1	16 34.8	-	1 2.2	1 2.2	46	27.2
621	3 75.0	1 25.0	-	-	-	-	4	2.4
622	-	-	2 66.7	1 33.3	-	-	3	1.2
623	10 33.3	6 20.0	14 46.7	-	-	-	30	17.8
631	3 27.3	5 45.5	3 27.3	-	-	-	11	6.5
633	2 40.0	1 20.0	2 40.0	-	-	-	5	3.0
653	11 25.0	4 9.1	27 61.4	-	2 4.6	-	44	26.0
Total	55	36	72	1	3	3	170	

* For code key see Table 1

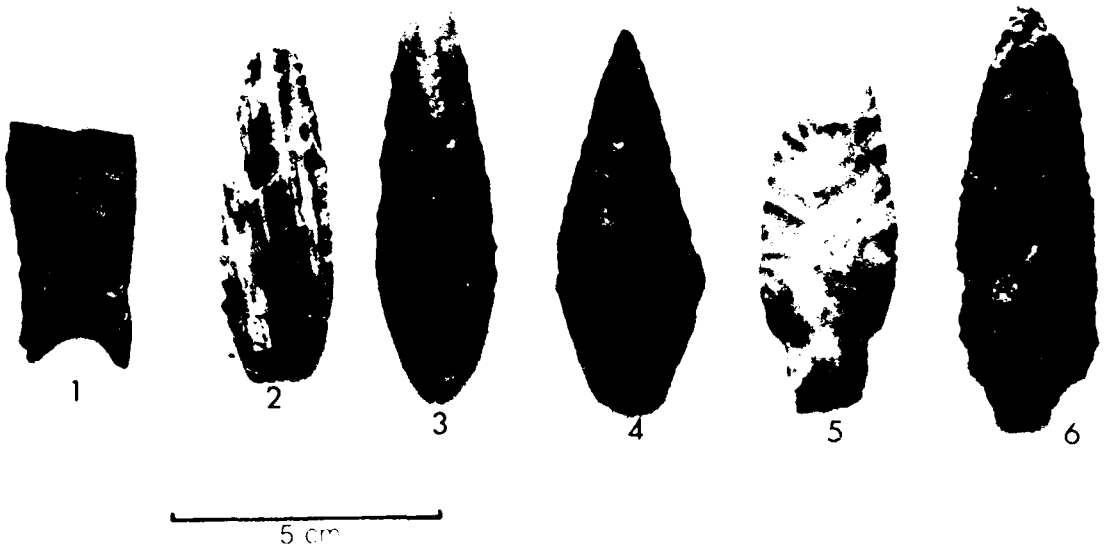


Figure 14. Lanceolate and stemmed points from Collection 1 (Roll 1:13). Site and point dimension designations: no. 1 10BR566:631, nos. 2-6 10BR494:613, 653, 623, 411, 411.

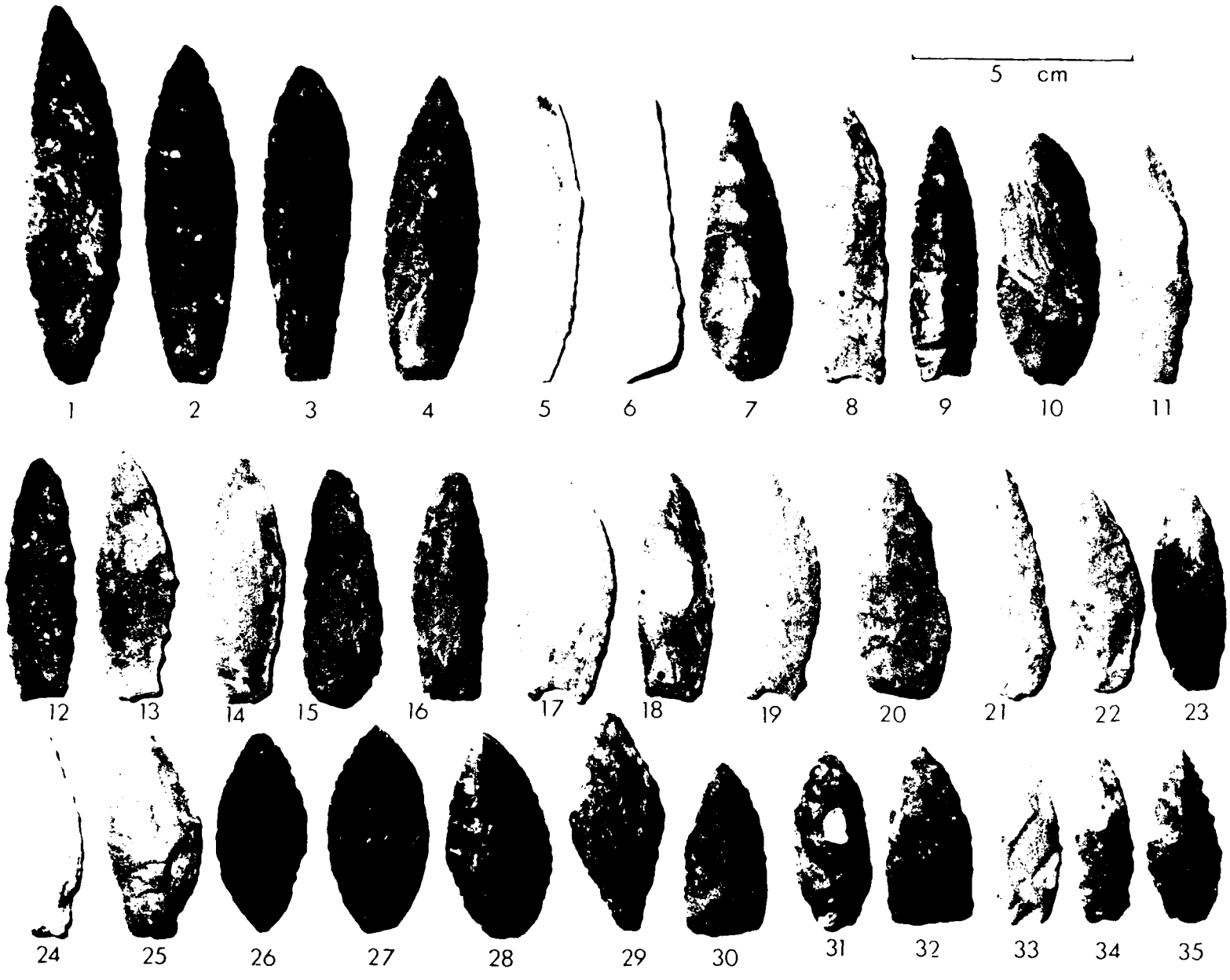


Figure 15. Lanceolate projectile points from Collection 10 (Roll 7:26).

Figure 16. Lanceolate projectile points from Collection 3 (Roll 3:2), 10BR522. Point dimensions: nos. 1-3 611, nos. 4 & 5 613, nos. 6-8 611, nos. 9 & 10 653, no. 11 621, no. 12 611, no. 13 623, no. 14 413, no. 15 653, no. 16 611.

1982).

There is evidence among the collections for later occurring, smaller lanceolate point styles distinguishable from the Cascade on the basis of morphology, size, probably technology, and often material type. The lanceolate points of Kootenai argillite shown in Figure 6 are typical as are most of the artifacts in Figure 17. They tend to have straight to slightly excurvate lateral edges and concave or straight basal edges. In many respects they are similar to McKean points. The McKean complex appears as early as 4900 B.P. on the Plains and does not persist beyond 3000 B.P. (Frison 1978).

Many of the Kootenai argillite artifacts have been collected from sites that also contained large corner notched points of the same material suggesting a more recent date, perhaps from 3500 B.P. to 2000 B.P. As noted earlier the prevalence of Kootenai argillite during this time period has been attributed to a riverine economy and increased summer fishing (Choquette 1984). Interestingly, one of the collectors had concluded that the lanceolate points were associated with fishing because of the areas they were found around Kootenai Point, Kootenai Bay, Oden Bay and Fisherman's Island. There is no immediately apparent reason why some system of fishing spear could not have used a stone rather than the bone points recorded in ethnographies of the Plateau for harpoons and fishing spears. In addition sites associated with fishing have been reported on both Lake Pend Oreille and the Pend Oreille River in recently published ethnographic work (Smith 1985).

Summary

We have a clear indication from the point typology for use of the project area from soon after it became ice free through Euroamerican contact. There are also suggestions of shifting regional influences through time. The earliest point styles are associated with thrusting spears and probably the highly mobile pursuit of big game. If the game was bison as is the case on the northern Plains (Frison 1978) and the Columbia Plateau (Daugherty 1956), we might expect the distribution of early projectile point forms to be coincidental with suitable bison habitat. A recently de-glaciated, unforested landscape as in the project area would seem a likely prospect. The earliest projectile points may represent the initial human use of the Clark Fork-Pend Oreille corridor between the northern Plains and the Columbia Plateau. Large Paleo-Indian style projectile points are rare in private collections to the north and have never been found in an excavated context in the central and eastern interior of British Columbia (Fladmark 1982). This region is more mountainous and was subject to glacial ice for an even longer period of time than the Pend Oreille area. Thus Paleo-Indian points in the local collections suggests a regional northern limit for a widespread stylistic tradition which may very well be closely related to bison distribution.

The abundance of Cascade-like lanceolate points suggests a continuity of traditions similar to the Plateau where Lind Coulee and Windust are regarded as historical antecedents of the Cascade Phase (Leonhardy and Rice 1970). Typological similarity and presumed cultural

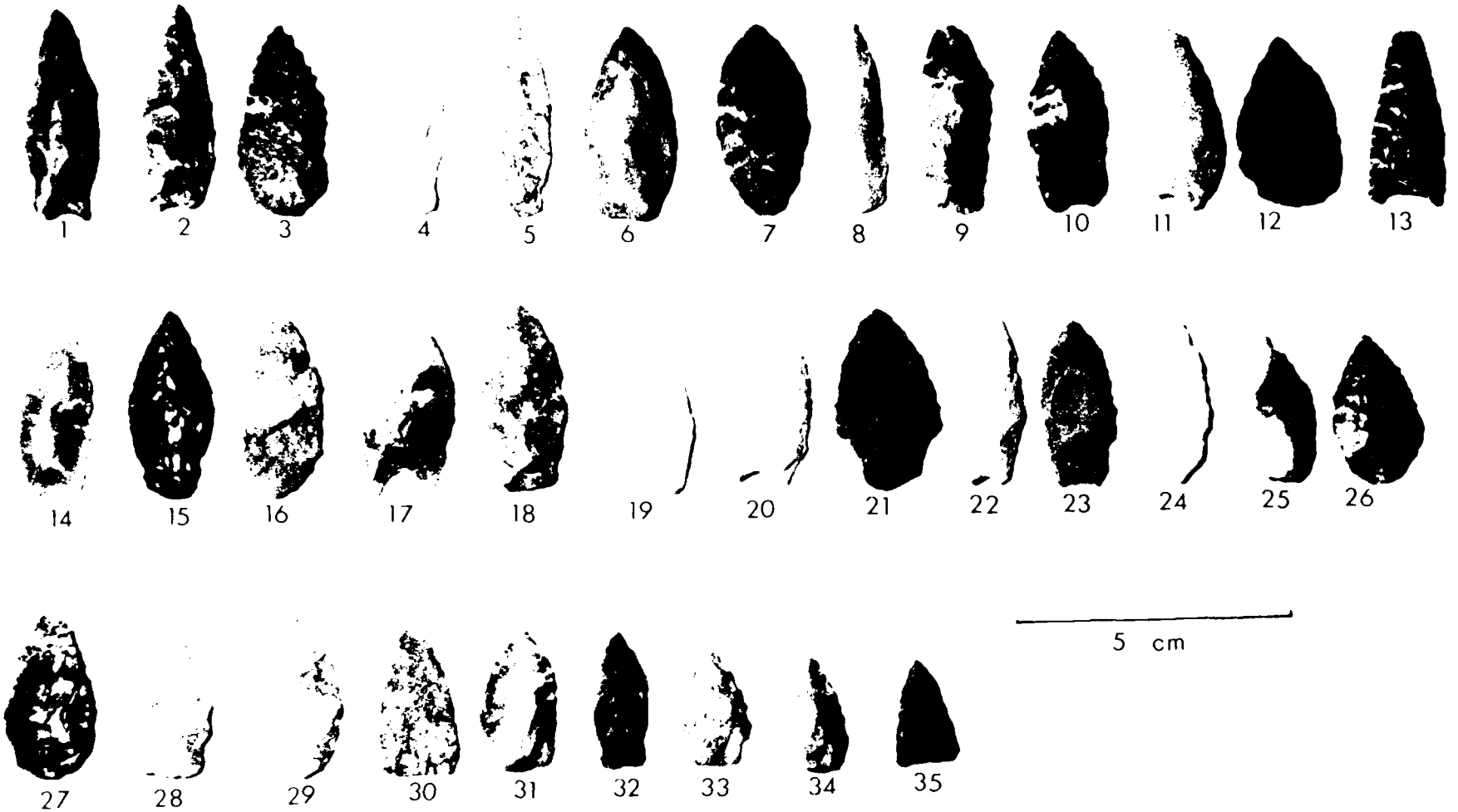


Figure 17. Lanceolate projectile points from Collection 10 (Roll 7:25).

affiliation with the Plateau continues through the post-Mazama, late Cascade sub-phase marked by the appearance of large side notched points. We have noted the similarity of large side notched points in the collections to Plateau and northern Rocky Mountain forms rather than to northern Plains styles. There is also a difference for this time period (8000 B.P. to 5000 B.P.) in the sequence as well as the chronology of point styles. On the northern Plains the beginning of the Early Plains Archaic is marked by the sudden appearance of large side notched points. Styles similar in morphology and technology to the Cascade lanceolate are absent.

After 5000 B.P. Plateau parallels are less obvious as a variety of styles proliferate. We have noted the rarity of Oxbow side notched forms found on the Plains and of Quilomene Bar basal notched of the Plateau and the lack of a pronounced stemmed point sequence as on the middle and upper Columbia. If hypotheses about the significance of Kootenai argillite are even partially correct, the middle period appears to have been one of local regional development with proliferation of large to medium sized corner notched and side notched dart points. At the same time there are more similarities to Plains' styles in points which seem to be of the McKean-Duncan-Hanna continuum including lanceolate and stemmed forms. Evidence of Plateau styles occurs again in the late period when distinctive small corner notched and stemmed arrow points appear.

NON-PROJECTILE POINT ARTIFACTS

A wide variety of finely flaked and cobble derived artifacts was included in the collections. Most were chronologically and geographically non-diagnostic. Although some inference is possible about site function from the artifacts, few have specific provenience so that they are better viewed as representative of that area. A chronologically broad spectrum of historic artifacts was also found in the collections ranging from possible Hudson's Bay Company metal trade ax heads, rings, and glass beads to lumber company exchange and state tax tokens from the first half of the Twentieth Century. In the following sections we discuss each artifact class, unique artifacts and other frequently found artifacts which raise questions. We conclude with a brief discussion of the historic material. Historic artifacts are listed by provenience in Table 15 and by collection in Appendix A.

Flaked Stone

Biface - This class ranged from artifacts roughly shaped by percussion retouch to more finely reduced objects (e.g. Figures 18, 19 and 22). The lengths of a few of the bifaces exceeded 10 cm. Although not tabulated, most are of locally available mudstone. Few of the bifaces correspond to a "roughout", or first general shaping stage of reduction (Muto 1971, Green 1972, Miller 1972), primary lithic debitage and cores are rare in the collections and site beach scatters (Miss and Hudson 1986), and scarcity of cobble deposits in the project area suitable for quarry activity all suggest primary reduction away

Figure 18. Bifaces from Collection 3 (Roll 3:6).

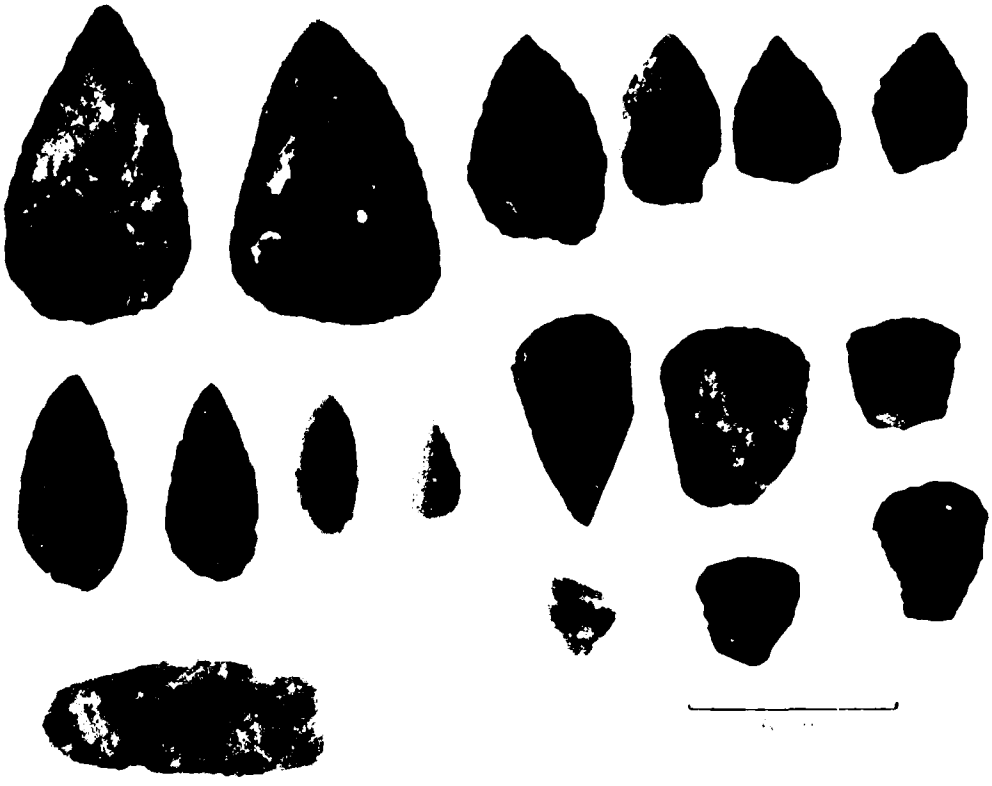


Figure 19. Bifaces, scrapers, preforms and knives from Collection 3 (Roll 4:18), 10BR516.

from the shores of lake and river.

The largest biface is of CCS material and of such fine workmanship as to suggest a trade blank with more than just raw material significance. Elsewhere burial goods have included collections of large, finely made bifaces (Gruhn 1960, Pavesic 1966, 1982, Muto 1971).

Knives - Knives included triangular, lanceolate, and occasionally pentagonal forms (Figures 19 through 22). Some of the largest notched bifaces may also have been hafted and used as knives (Figure 8). That at least some of the unnotched forms were hafted or socketed is apparent on artifacts where re-sharpening has interrupted the original line of the lateral edges (Figure 21, nos. 1, 3). The pentagonal knife has been suggested as characteristic of late phases on the Plateau (Galm et al. 1981:Fig. 2); some of the re-sharpened forms are virtually identical to artifacts attributed to Late Prehistoric Shoshonean sites on the Plains as well (Frison 1978:Fig. 2.23).

Preforms - numerous small triangular artifacts were included in the collections. Most require further reduction and notching to become projectile points (Figure 20). Some are large enough to have been precursors to dart sized side and corner notched points, however, most are smaller and associated with the manufacture of arrow-sized points. Some lanceolate artifacts classified as bifaces or even as projectile points may have been intended for further modification to stemmed and shouldered lanceolate forms.

Uniface - A few unifacially retouched cobble spalls were encountered in the collections. This was not a common artifact nor was it noted in recent surveys. A variety of unifacial denticulate artifacts and other forms derived from cobbles is characteristic of Cascade assemblages (Bense 1972). Their absence despite the presence of lanceolate projectile points may signify functional or subsistence variations between the two areas.

Drill - Both bits and basal portions of these artifacts were common among the collections. Several may have been formed from what were originally other bifacial tools, knives, preforms, or projectile points retaining characteristic basal shape or hafting element. Others have bases with minimal modification of the original flake (Figure 23).

Burin - No burins fitting our description were identified. However, they could easily have been included in the bags, shoe and cigar boxes full of tool fragments and flakes not examined.

Graver - These tools are common in the collections. Many are made by minimally modifying flakes, generally with unifacial retouch. Others are similar to drills, but with shorter nibs (Figure 23).

Scraper - A variety of scapers were found, both small endscrapers and larger flake forms (Figure 22). One collection contained numerous small distal fragments retaining the working edge of the tool. The fragment form and the small size suggest socketed or hafted forms. At least one artifact made on a large parallel sided, blade-like flake had proximal opposing notches for hafting (Figure 24).

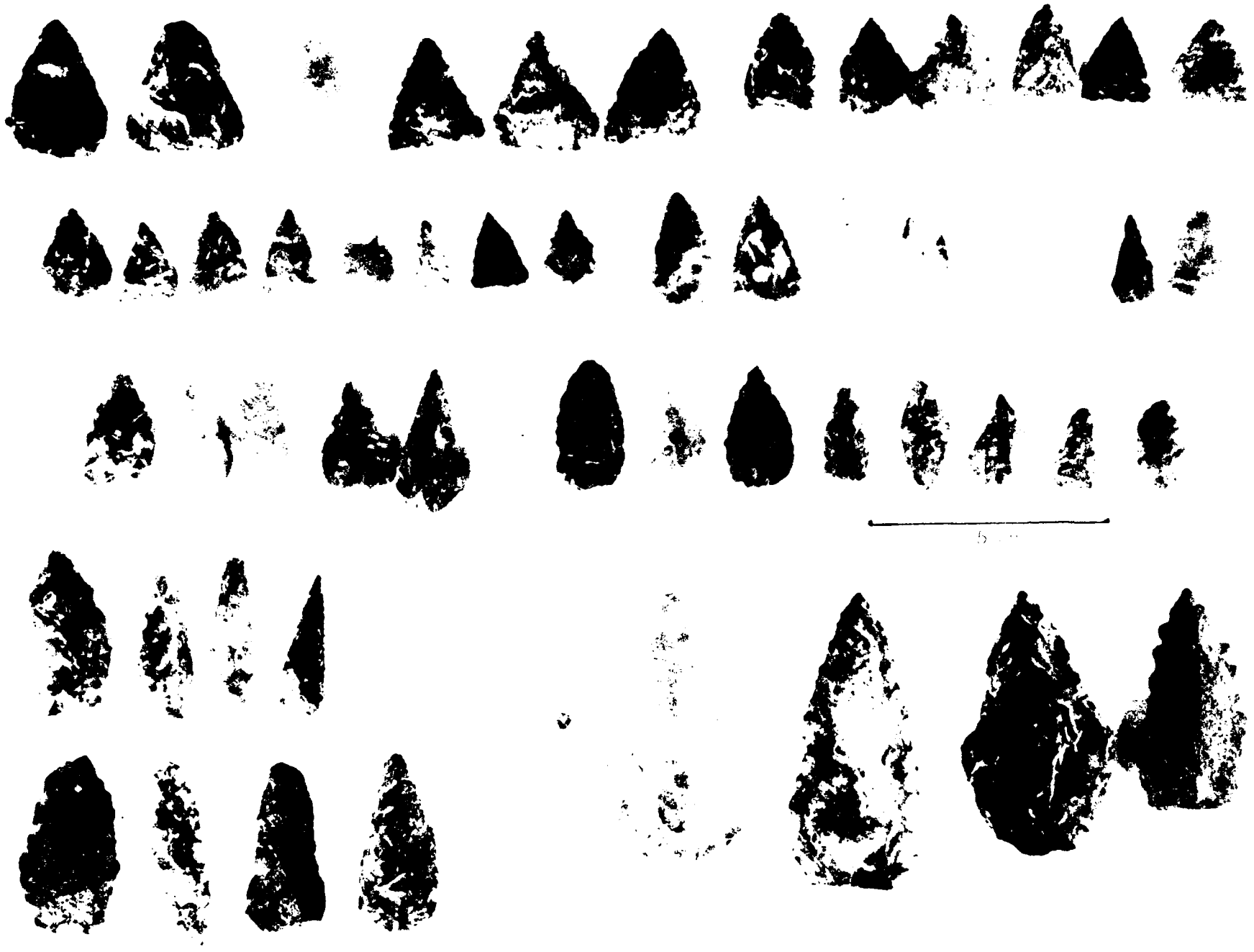


Figure 20. Preforms and bifaces from Collection 2 (Roll 2:11), 10BR453, 454.

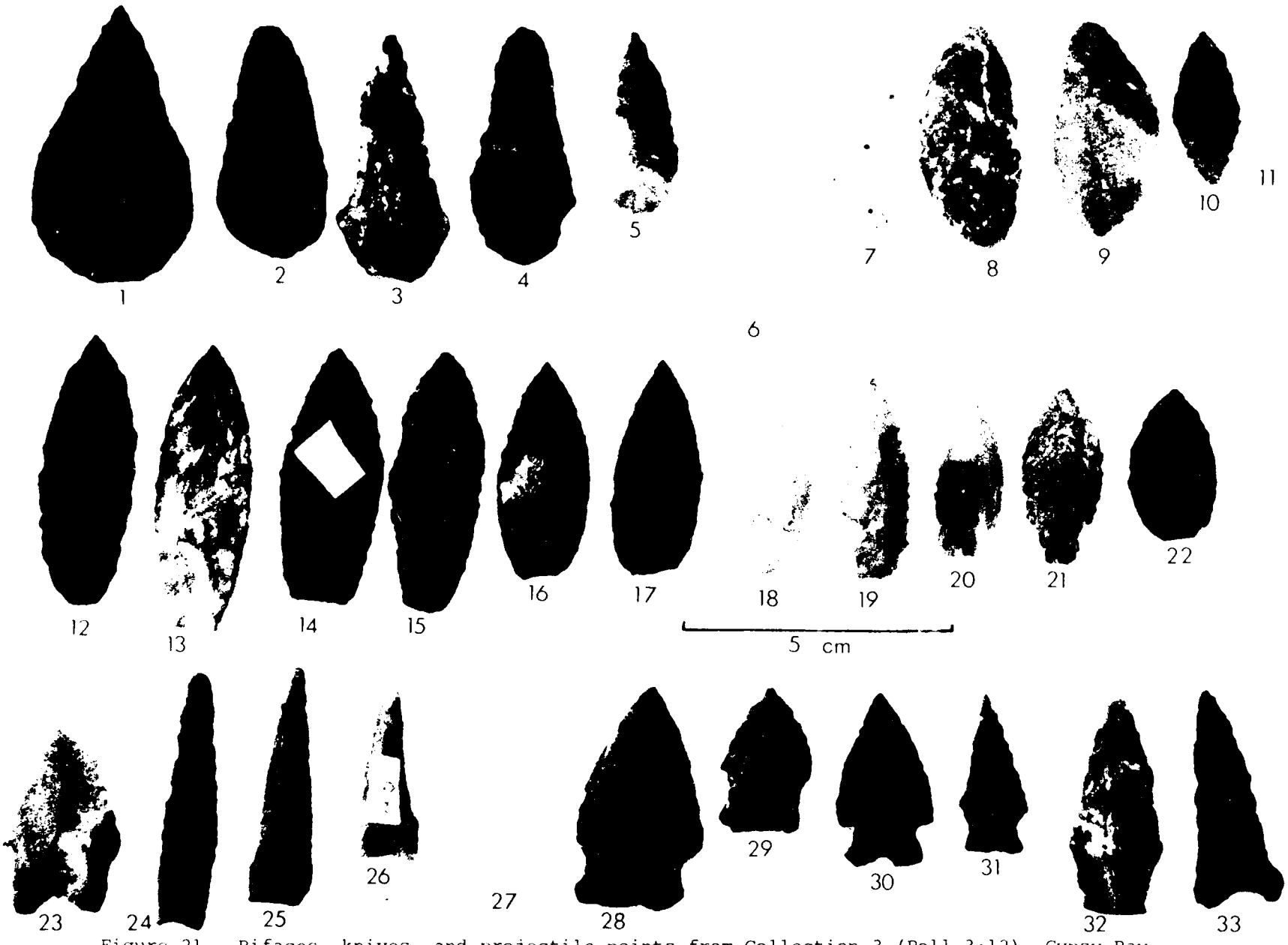


Figure 21. Bifaces, knives, and projectile points from Collection 3 (Roll 3:12), Gypsy Bay, 10BR430, 431, 432. Artifact dimensions: nos. 1-5 620, nos. 6-12 653, nos. 13-22 613, no. 23 431, nos. 24-26 611, no. 27 110, nos. 28 & 29 212, no. 30 232, nos. 31 &32 412, no. 33 730.

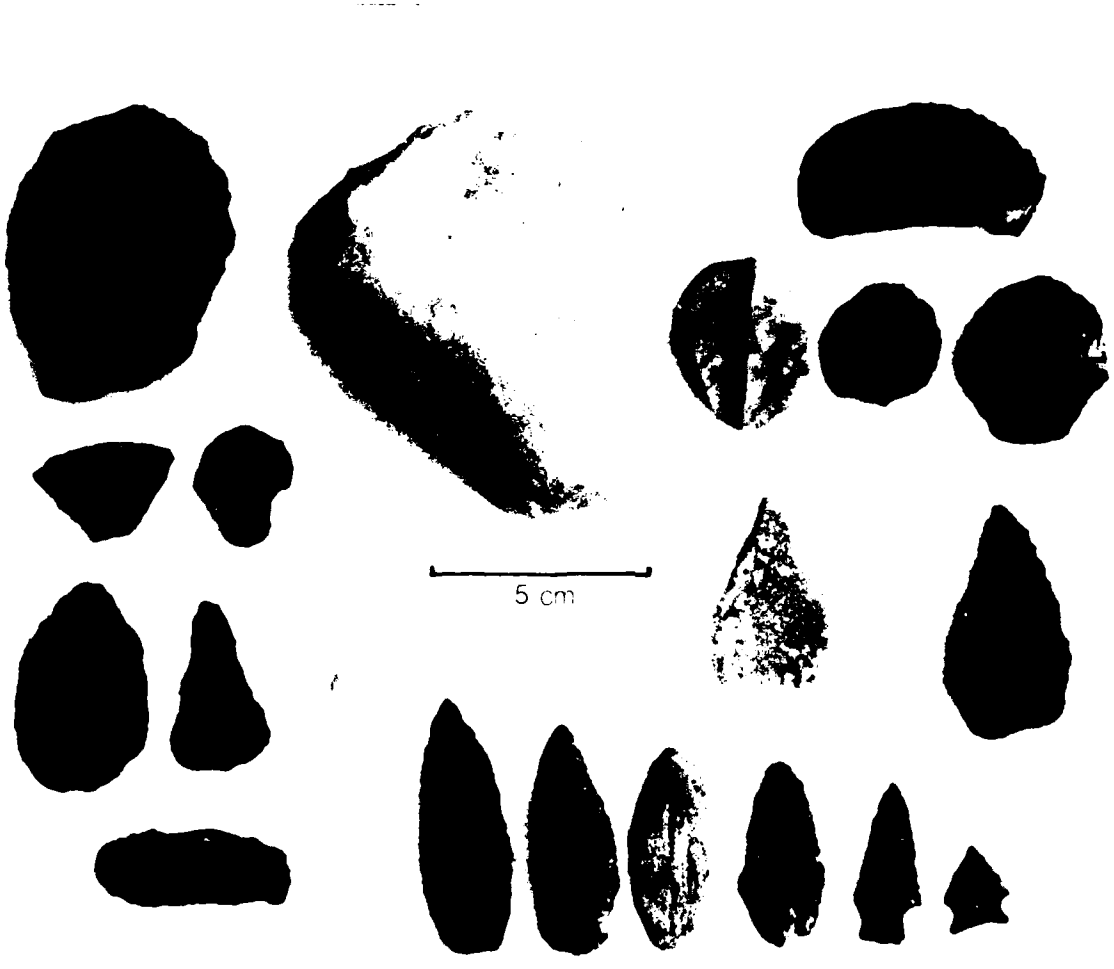


Figure 22. Choppers, scrapers, knives, and bifaces from Collection 3 (Roll 5:2), Gypsy Bay 10BR430, 431, 432. Biface dimensions: nos. 1 & 2 613, nos. 3 & 4 623, nos. 5 & 6 212.

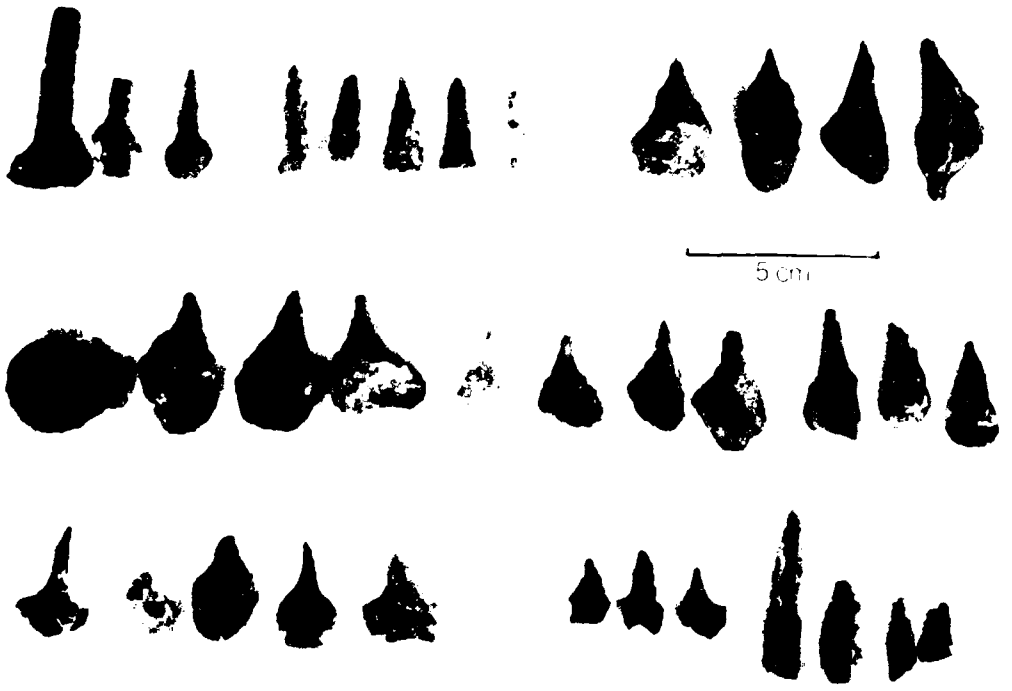


Figure 23. Drills and gravers from Collection 2 (Roll 2:15), mouth of Cocolalla Creek, 10BR453,454.

Figure 24. Notched cobble, side notched point, hafted scraper (10BR502,503), biface (type 653), and an obsidian core fragment from Collection 3 (Roll 4:4).

Spall/tabular knife - The collections were highly variable as to whether they included these kinds of artifacts. Specimens observed are virtually identical to quartzite tabular knives from Kettle Falls and Rufus Woods Lake on the Columbia River (Miss and Hudson 1986:Figure 33). They are most often thin pieces of quartzite retaining little or no cortex. Source areas could be the bedrock outcrops near Kettle Falls (Chance and Chance 1982) or similar, closer formations. Occasional spall forms with nearly complete dorsal cortex were also observed.

Spokeshave - A few artifacts of this description were observed.

Blade - Several large blades were found among the collections, all with edge modification from use or retouch. There is little to indicate that these are anything more than fortuitous by-products of a core-flake reduction technology. The numerous lanceolate points made on blade-like flakes suggests we should be alert for evidence of Levellois blade production technology in future analyses of debitage, cores and production processes.

A single microblade was observed from Collection 6. No microblade cores were encountered. Recent evidence from Kettle Falls (Chance and Chance 1985) and interior British Columbia (Fladmark 1982) suggests this kind of artifact is no longer so clearly associated with early time periods as had once been thought.

Core - Cores and large primary flakes were rare in the collections. Collection 8, something of an exception, contained several fist sized flaked nodules of primary material. Most were CCS; one was obsidian and retained extensive cortex.

Chopper - A rather classic cobble chopper is shown in Figure 22.

Flaked cobble - Artifacts in this category ranged from rocks with single flakes removed to extensively flaked and battered cobble fragments similar to Cascade Phase material on the Plateau (Figures 25 and 26).

Modified flakes - This was a highly variable category.

Ground/Battered Stone

Hammerstone - This kind of artifact is not regularly picked up by most collectors. Collection 7 contained numerous examples.

Maul/pestle - Mauls and pestles are highly prized by collectors and occur in a variety of shapes and sizes (Figures 27 through 29). Grooved mauls were also found, possible late period markers with eastern geographic connotations (Frison 1978:Figure 2.25). A zoomorphic artifact may be a pestle or maul handle fragment (Figure 28).

Edge ground cobble - No examples of this kind of artifact were noted in the collections. Again, the crates of cobble tools from Collection 7 might contain examples.

Net weight - Numerous flat pebbles like that shown in Figure 24 with opposing notches were observed.

Support stone - A single flat, rectangular stone from Collection 9 with evidence of battering on one face was interpreted as a support

Figure 25. Flaked cobble from Collection 3 (Roll 5:8), 10BR522.

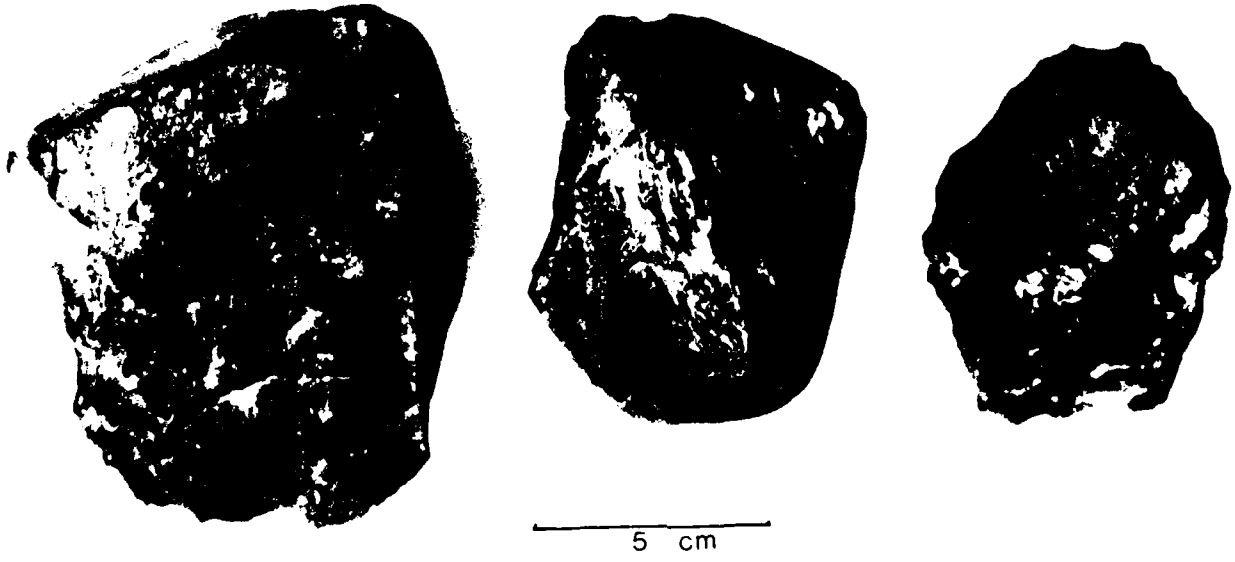


Figure 26. Flaked and battered cobble fragments from Collection 3 (Roll 5:6), 10BR522.

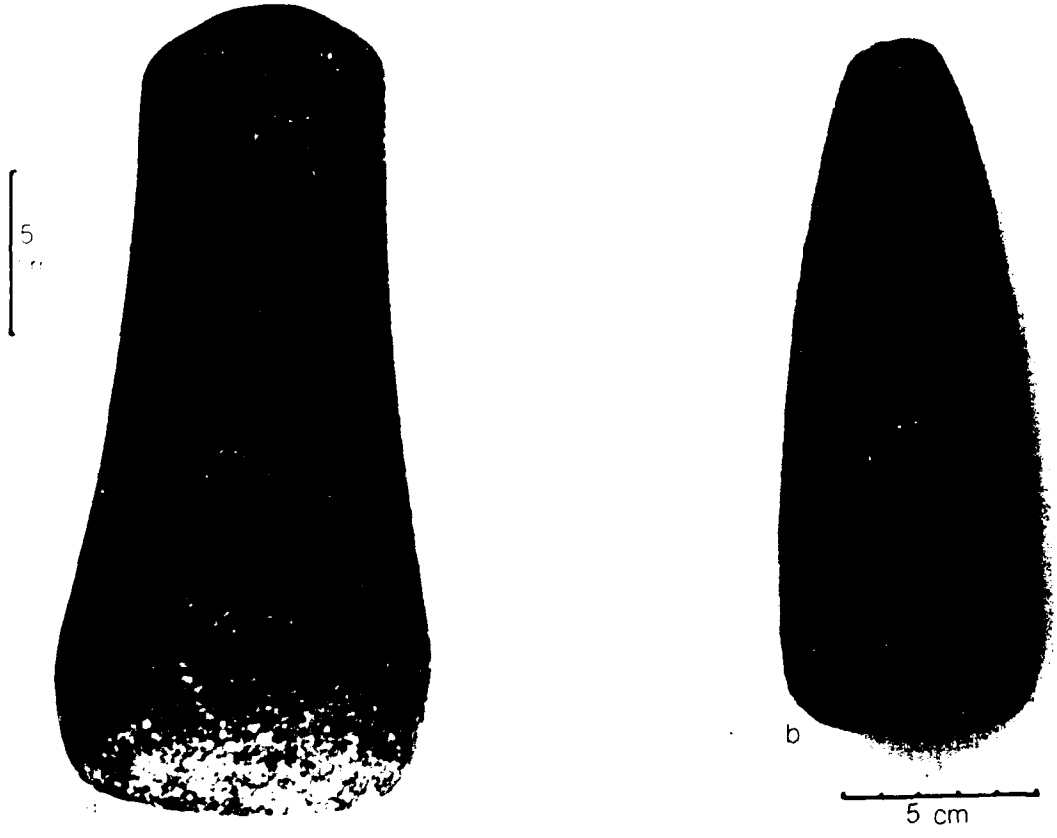


Figure 27. Pestles from Collection 5. Pestle "a" is from 10BR497 (Roll 5:11), the location of "b" is unknown (Roll 5:13).

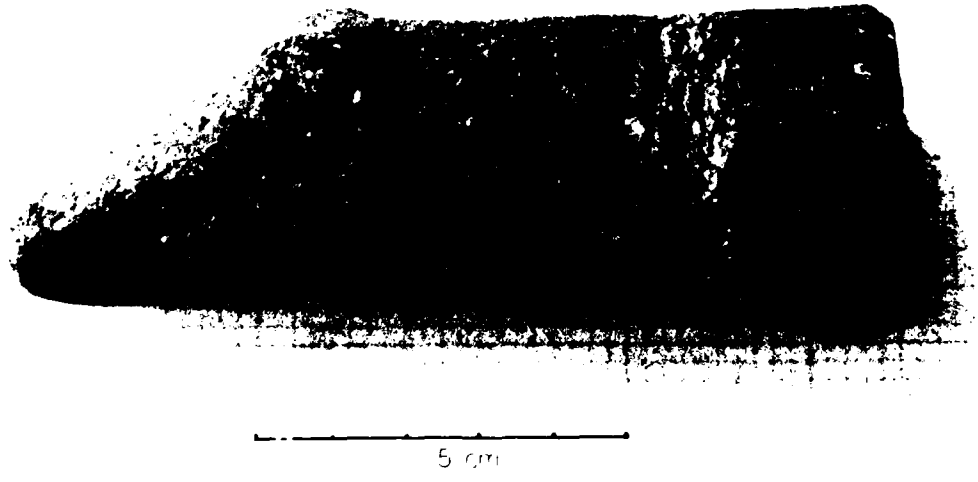
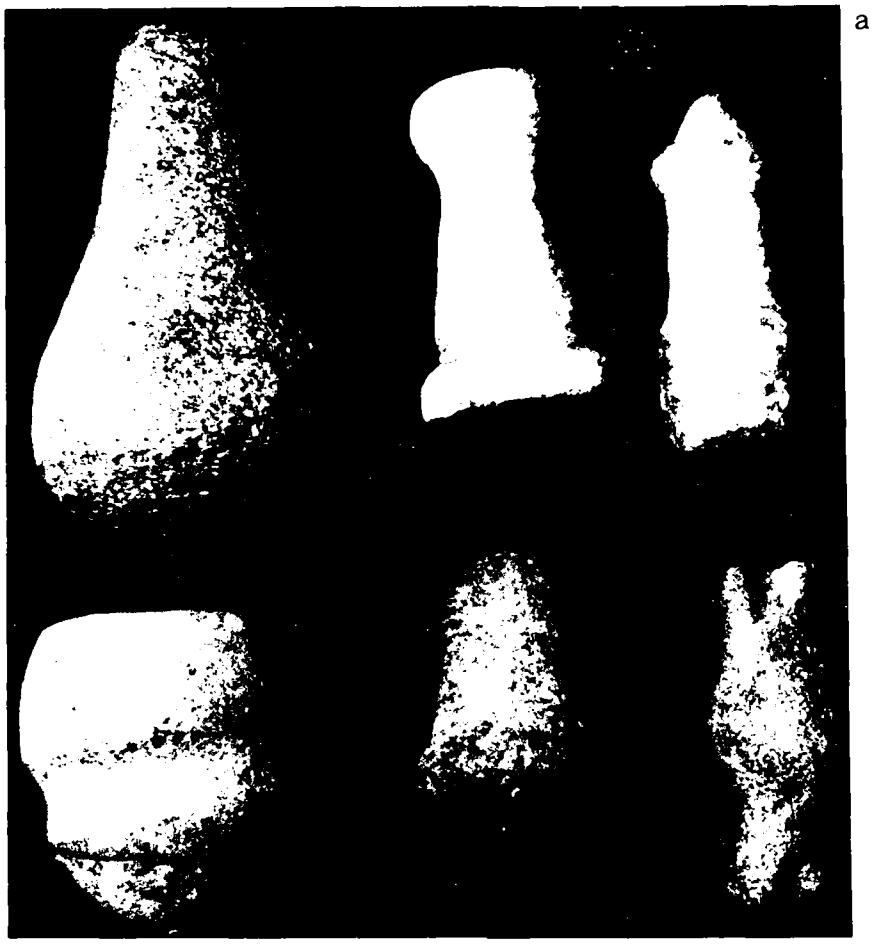


Figure 28. Zoomorphic pestle (?) fragment from Collection 5 (Roll 6:36).



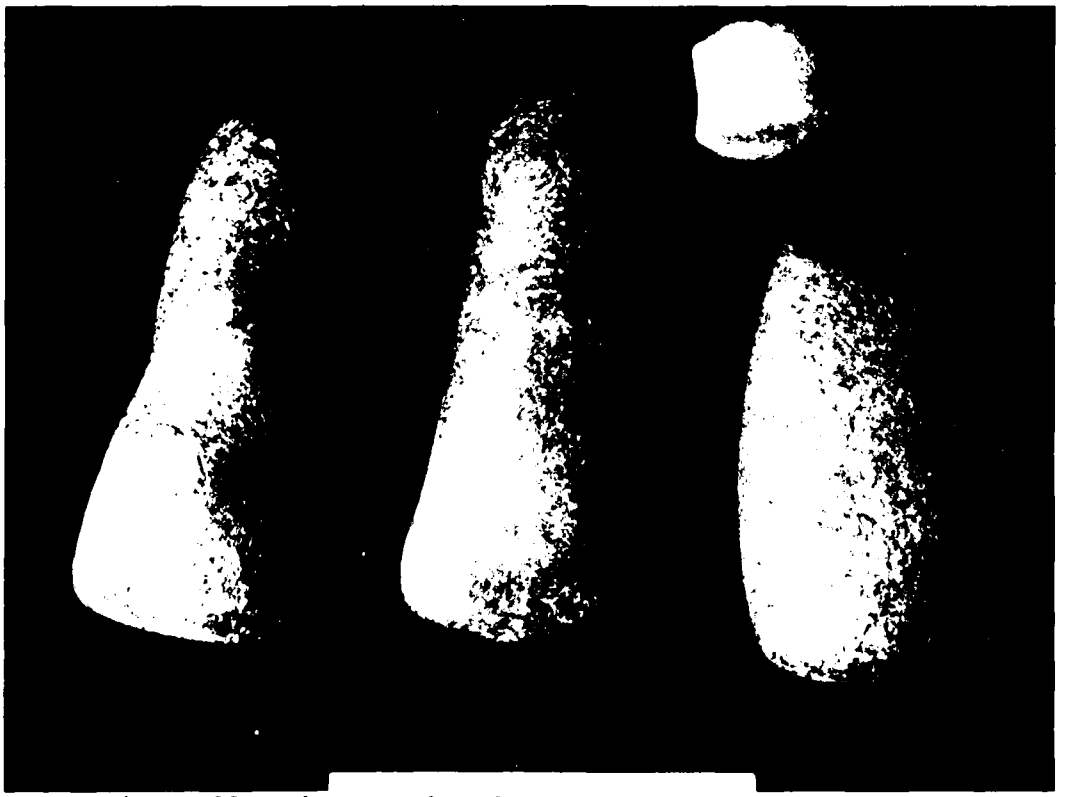


Figure 29 a, b. Pestles from Collection 10 (Roll 7:18,22).

stone. This kind of artifact seems to be rare in comparison to the numerous, relatively massive milling stones and hopper mortar bases characteristic of sites on the middle and upper Columbia River. Absence may be attributable to lack of large cobble sources, a different economic focus in the project area, and/or functionally different kinds of sites along the Pend Oreille River.

Abrader/whetstone - Several coarse sandstone and pumice-like abraders were noted (Figure 30).

Palette/paintstone - The support stone described above has been interpreted as a paintstone in the Bonner County Historical Museum where it is on display. A small amount of red pigment has been crushed on its surface. No other artifacts of the proper description were observed.

Adze/celt/wedge - Examples of both large and small green nephrite adzes were found in the collections (Figure 31). The assumption has been that this tool comes from the Fraser River of the interior of British Columbia and represents trading patterns or northern influences as old as 3000 B.P. (Grabert 1968, Nelson 1969). One collector maintained he had heard of a source of similar, though distinguishable raw material in Montana. Recently, nephrite pebbles were identified in glacial till in the Chief Joseph Dam archaeological project area (Hibbert 1985) suggesting other, southern sources. However, pieces from glacial outwash generally lack the quality and size required for adze blades (D. Rice personal communication).

Incised stone - The most impressive incised stone is an engraved steatite pipe whose photograph is presently on display in the Bonner County Historical Museum (Figure 32). Other incised stone pipe fragments and a stone disc pendent were in collection 10 (Figure 31).

Pipe - Tubular pipes and pipe fragments manufactured of steatite or other soft, dark stone were observed in a number of collections.

Beads - Steatite beads were noted but were infrequent. No shell beads or other shell artifacts were seen.

Other

This category includes several unusual ground stone artifacts: bolas stones, found in the late Windust Phase on the southern Plateau (Leonhardy and Rice 1970; Rice 1972); a triangular fragment which resembles a digging stick handle; and a possible atlatl weight from Collection 7 (Figure 30).

It also includes a puzzling kind of artifact often encountered in the collections. As shown in Figure 33 these rectangular, flat stones vary in size yet are consistent in having bifacially modified edges showing abrasion so extreme that they are blunted and portions of flake scars have been obliterated. They are also uniformly black, platey mudstone, often with cortex. The function of these artifacts is unknown. The collectors think they are net gauges or, more commonly, gambling stones. Photographs shown to archaeologists familiar with regional artifacts have prompted no immediate identification. They could be associated with fishing, used as net weights, however numerous flat,

Figure 30. Bola stones (nos. 2, 3, 5), digging stick handle ? (no. 1) and a whetstone (no. 4) from Collection 3 (Roll 3:10), 10BR522.

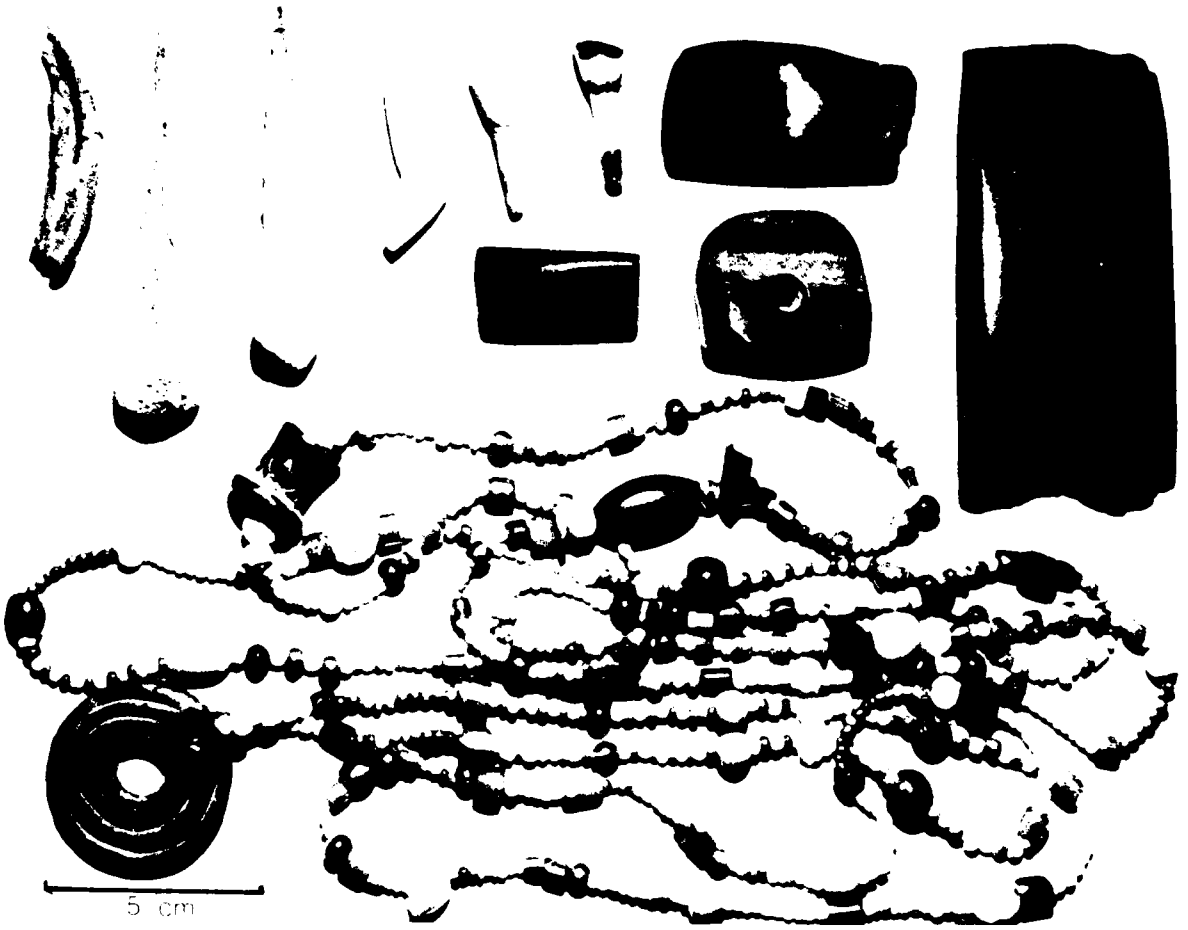


Figure 31. Bone aels, carnivore and elk teeth artifacts, nephrite adzes, glass beads and a large stone pendant from Collection 10 (Roll 7:20).

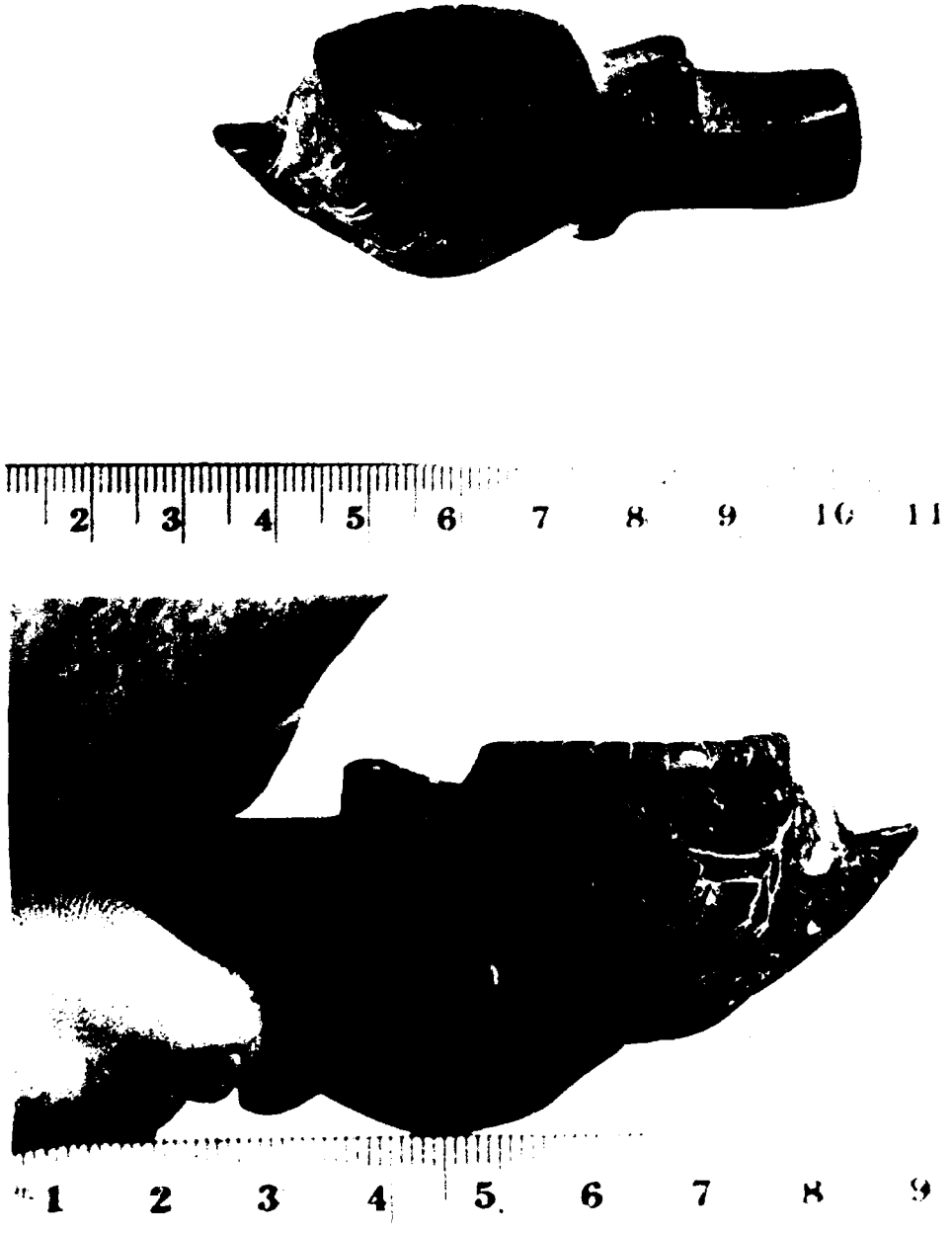


Figure 32. Incised pipe from Collection 6 on display at the Bonner County Historical Society Museum, Sandpoint (photograph courtesy of WR Chuck Peterson).

Figure 33. Rectangular bifaces from Collection 5 (Roll 7:2).

notched pebbles of similar weight occur in the collections and would seem to fulfill this function. A similar artifact was excavated recently from 45PO144 near Usk, Washington. Unfortunately, its context was disturbed and associations uncertain. The site in general appears to have been used relatively marginally in comparison to other nearby sites for processing camas in earth ovens. Even with this information, we are uncertain there is a direct connection between the tool and camas processing. Possibly it was used in preparing the camas bulb or other vegetable material for baking although this does not jibe with ethnographic accounts and similar tools were not found at more intensively used camas processing sites. Based on the extensive abrasion wear, we suggest the artifacts were used in some manner to prepare fibers, perhaps for the manufacture of bags or baskets which would be useful for camas harvest and transport and make the tools' appearance likely in other contexts as well.

The last individual artifact considered is a carved stone figure (Figure 34). It is made of reddish soft stone, possibly catlinite. Catlinite is available in Montana, however, the figure appears to be somewhat seal-like presenting an interesting juxtaposition of material and motif. Of course there is no guarantee that the object is of any antiquity since people are known in the area today who work the same stone (Chuck Peterson, personal communication).

The final group of artifacts is curious because of the small sizes and uniformity of material and manufacture (Figure 35). Small cores, endscrapers, scraper-planes, knife-like unifaces and bifaces have all been manufactured from split, dark mudstone pebbles and pebble spalls. None of the objects pictured is larger than 5 cm and all retain extensive cortex. The artifacts appear as an assemblage of miniature tools. There is the possibility that our choosing to associate the artifacts imposes structure which is in reality non-existent. However, the artifacts are distinctive enough individually when sorting through literally hundreds of tools, tool fragments, and debitage to draw one's attention. The only reference we have encountered in the literature that is even remotely applicable is a note on the replacement of the blade/core tradition on the northwestern Plains by "split-pebble Rundle technology involving the use of small black chert pebbles to produce piece esquilles, endscrapers, point blanks and small parallel sided flakes by the bipolar hard anvil technique - probably employing punches" (Reeves 1983:17). The technology is characteristic of the Late Prehistoric Old Woman's Phase which appears about 1100 A.D. (Reeves 1983).

HISTORIC ARTIFACTS

Table 15 illustrates the type, variety and distribution of historic artifacts. A major portion of each individual historic collection was made up of beads, buttons, marbles, lead bullets and balls, and coins. We were not as likely to find undiagnostic historic items as we were prehistoric lithic debitage within each collection. Where people would collect flakes and broken modified lithics they did not seem inclined to pick up unmarked bottle fragments, ceramics, or metal that were not complete items or nearly so. Below is a brief discussion of the major

Figure 34. Catlinite zoomorphic figure from Collection 10 (photograph courtesy of W.R. Chuck Peterson).

Figure 35. Pebble tools from Collection 3 (Roll 2:20A).

Table 15

Distribution of historic artifacts

ARTIFACT	LOCATION Site 10BR 16	94	286	494	497	518/519	Area K	Q	X	Y	O	Z	Aa
Beads:													
Ceramic	x	x			x		x					x	
Metal							x					x	x
Marbles												x	
Buttons:													
Glass							x						x
Metal							x			x		x	
Coins	x							x			x		
Rifle:													
Slugs							x					x	x
Balls	x						x					x	x
Cartridges												x	x
Gun Flints	x						x					x	
Military Insignia												x	
Religious Medals				x	x	x						x	x
Ax Heads								x					
Jewelry								x					
Tokens:													
Trade													
Tax													x
Pipes													x
Ceramic													
Other:													
Knife												x	
Incised Brass												x	
Slate Pencil												x	
"Opium" Bottles								x			x		

* See Appendix C for area codes

** Z = Unknown location

categories of historic artifacts present in the private collections studied.

Beads

Beads made up a large portion of the historic items in the private collections. There were a variety of types represented as can be seen in Figures 31 and 37. Cut beads in blues, greens, pink, black, and white were most common followed by cut and ground and wound beads. Glass beads of these varieties were trade items in the Plateau area before Euroamericans arrived in the early 1800s. During the 1800s, Hudson's Bay Company (HBC) imported such beads for their trading inventories.

Buttons

Although fewer than twenty buttons were present in the collections, we were told by different collectors that they had more or had collected them in particular areas but could not find the buttons at the time we were conducting this study. Each of the metal buttons found had eyes for attaching them to a garment. The remaining buttons were either ceramic or glass. Four ceramic buttons were white and commonly called "Prossers" as evidenced by the mold-caused indentations surrounding the sew-through holes on the base. These buttons were produced from around 1850 to the early 1900s.

Coins

Most of the coins inventoried during this study came from Collection 10. This family of collectors was equipped with a metal detector which greatly increased their recovery rate. The following is a brief listing of the variety and dates of coins in this collection.

U.S. quarters - 1885, 1893, 1905
U.S. nickels - 1869 or 1889, 1897, 1902, 1904, 1905, V
U.S. ½ dime - 1854
U.S. dimes - 1860, 1875, 1877, 1891, 189?, 1899, 1902, 1904, 1905
U.S. quarters - 1894, 1900
U.S. silver dollars - 1883
Canada nickel - 1901
Canada quarter - 1892

Of particular note was the presence of ten Chinese coins (Figure 36) which were found in the Sunnyside and Denton Slough areas. It is quite possible that these were related to the Chinese who were involved in the construction of the Northern Pacific Railroad in 1880.

Bottles

There are very few bottles in these collections and most of those present are small. Collection 10 contains "opium" bottles (Figure 36) that were collected in areas near the railroad tracks along Lake Pend Oreille. It is generally thought that these bottles did not contain the sticky opium which was usually packed in tins. The presence of these bottles is, however, associated with Chinese occupation.

Figure 36. Historic artifacts from Collection 10 (Roll 7:19, 16). "a" religiour medal, bottle closures and "opium" bottles and "b" gunflints and Chinese coins.

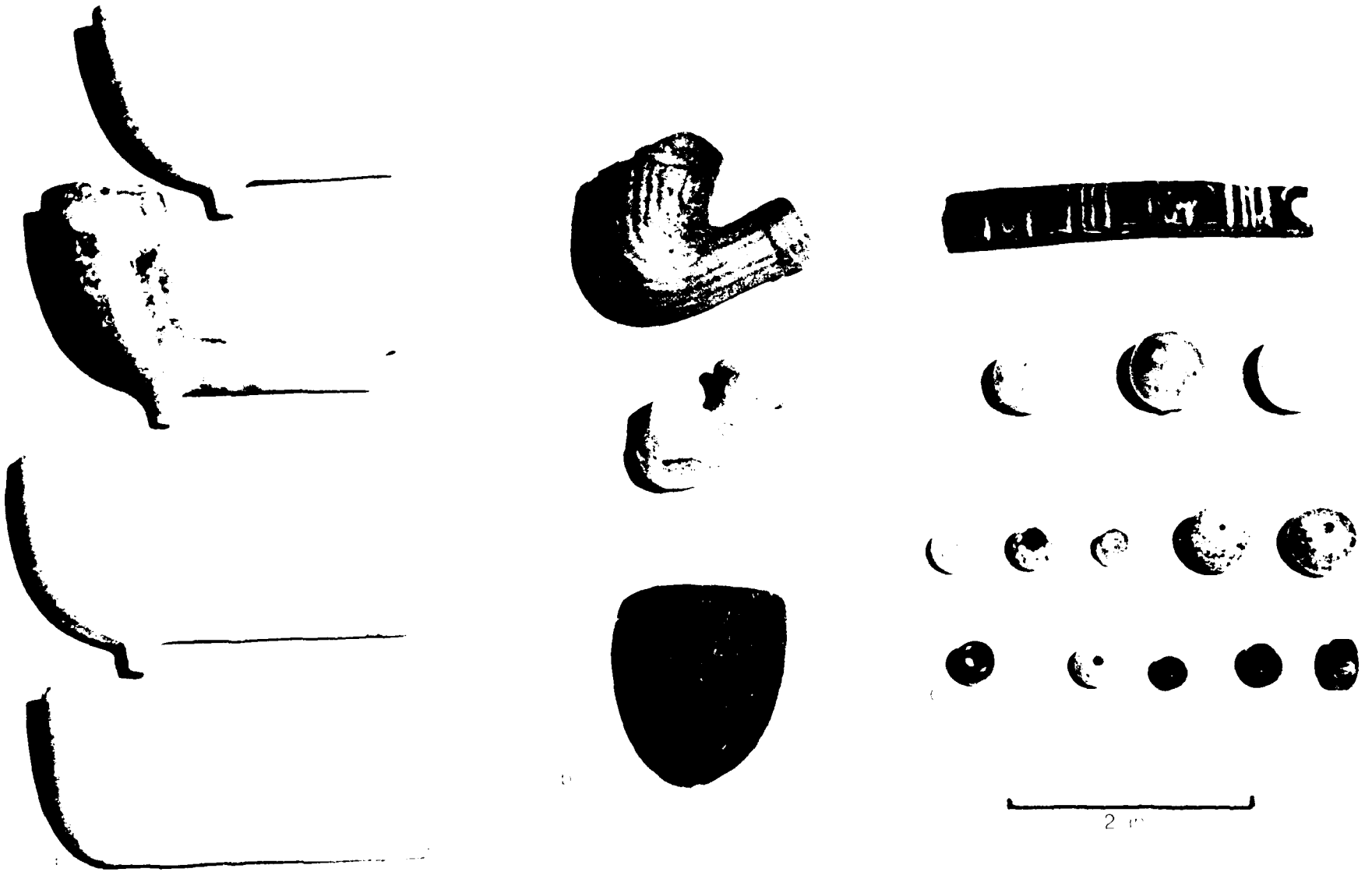


Figure 37. Historic artifacts from Collection 10 (Roll 7:16). "a" and "b" clay pipes, "c" decorated brass band, ceramic marbles, and glass beads.

The only large bottle represented in this study was brown with the words LIFE PRESERVER/WALTER DISTILLING CO. embossed on opposing panels. This bottle was ten inches high with seams on opposite sides to the neck.

Several small clear glass bottles with embossed Chinese characters (Figure 36) were found by collectors. These appear to be medicinal or cosmetic.

One collector had saved an aqua glass fragment with embossed lettering that was used by the Aldophus Busch Glass Manufacturing Company between 1880 and 1913.

Various bottle closures were present in the collections the most common of which was the style used by Lea and Perrins on their Worchester bottles (Figure 36). Other closures illustrated in Figure 36 are probably from cosmetic or medicine bottles.

Ammunition

Lead bullets and mini balls were present in seven of the ten collections. These items date from the early 1800s and into the second half of the century. Four gun flints (Figure 36) were also found by collectors.

More recent ammunition included a .22 calibre rimfire cartridge made by the Winchester Repeating Arms Company from 1917 on and a shotgun shell also made by Winchester.

Marbles

Eleven clay marbles were inventoried in the project collections (Figure 37). Five of these were tan and unglazed, three were glazed white, one was glazed black, one was mottled blue and one was a mottled brown. These marbles were probably produced in the late 1800s to the early 1900s. The blue and brown mottled marbles are crockery and have pock marks were they rested against other marbles during the firing process.

Clay pipes

White clay pipes, an artifact commonly found in 19th century sites, are represented in this study by over twenty specimens. Pipe bowls bearing TD/HOMER, TD 78 W. WHITE and McDOUGALL were present. These pipes date from the mid-1850s to the 1960s and are commonly associated with HBC or military activities.

Less common pipe fragments are seen in Figure 37. The top pipe is made of clay and the bottom two appear to be of stone.

Religious medals

At least five religious medals were found by the collectors. Dating these items is difficult because religious motifs change very little over time. One St. Gonzaga and two Virgin Mary medals were identified.

Tokens

Four tokens, one from the Republic of China, two from the A.C. White Company and one from Washington State were inventoried. The A.C. White tokens were issued for use at the lumber mill's store and were worth five cents and one dollar. This lumber company operated in Laclede, Idaho until the late 1920s. Nothing is known of the Chinese token. The last items is a 1935 Washington State tax token.

Other

Figure 37 shows an incised brass band whose function was not determined. The band is slightly curved and is broken where there was a hole through it.

Although we saw only one ax head during our study, we were told by a family of collectors that they had had at least five. They referred to these as HBC trade axes. These same collectors also had a metal finger ring that they said was a HBC trade item.

Other items within the private collections included slate pencils, a military insignia and several pieces of jewelry some of which are modern.

GEOGRAPHIC DISTRIBUTION

Distribution of the artifacts among sites on Lake Pend Oreille and the Pend Oreille River strongly reflects collectors' preferences. Preference in turn is based on the known likelihood of finding the desired objects as well as accessibility, erosion and exposure at low water. In a general way the distribution of the artifacts reflects distribution of the sites.

We believe a conservative approach in discussing site associations is prudent. Cultural material exposed on a beach is not necessarily representative of an entire site nor have artifacts been collected systematically enough to be regarded as representative. The following discussion should be viewed as presenting tentative conclusions which are more than conjecture, but which require more rigorous testing.

A bias of both the collectors and the analysts has been a concern with the older style points. Thus we have more locational information for large lanceolate, shouldered lanceolate and stemmed points. The small and medium sized points have a broad, less well documented distribution in the project area. A final bias is the derivation of the majority of locations from a single collection (Table 16). However, locations were reiterated by other collections and by the recently completed surveys.

Figure 38 presents general areas and locations reported by collectors. Conversations with these people indicated most collecting took place from Dover downstream to the Dam, more often on the north side of the river than the south because of easier accessibility. The most frequently mentioned areas were the beaches at Dover (Area X), the mouth of Cocolalla Creek (Area U), and both sides of the river at Laclede (10BR16, 496 and Area K). Less frequently mentioned were the mouths of most of the tributary drainages of the Pend Oreille River, Albeni Cove (Area R), and Sagle Slough (Area S). Locations on Lake Pend Oreille were indicated much more generally than on the river, e.g., Oden Bay, Ellisport Bay, Denton Slough, and much less frequently mentioned. When asked about locations on the southern portion of the lake, several collectors responded saying they had looked over the beaches at many of the small bays but had never found much. None had spent much time at the extreme south end of the lake in the Buttonhook Bay-Farragut State Park area.

Must of the locations noted have one or more sites recorded for them (Appendix C). Only locations D on the mud flats at the east end of the Pack River railroad bridge, C, the west side of Bottle Bay, and N, south of Albeni Falls Dam, had no sites recorded. These locations along with Areas A, B, E, and Q deserve re-examination. There are also rumored sites at "Dog Beach" (Area L), an area of heavy recreational use near Sandpoint, and at the south end of the Northern Pacific railroad bridge southeast of Sandpoint.

All of these locations except N were surveyed recently, however, variation in prevailing winds, frequency of storms, water level, vegetation growth, sedimentation and recent construction all affect our ability to detect sites. Most of these locations are on the lake,

Table 16

Area distribution of artifacts

Includes information from 1985 Survey (Miss and Hudson)

Coded Collection 11

	Projectile Points[1]						Other Artifacts				
	SN	CN	BN	Stem	SL	LN					
Location	123	123	123	123	123	123	FS[2]	GB[3]	Hist	Collection	N[4]
10BR											
5	xx	x								3	6
13	xx	xx			x	xx	x			3,6	10
14	x x	xx		xx			x			3	14
15	xx	x		x	x	xx	x			3	26
16	xx	xx	xx	xxx		x	x		x	3,4	41
17		x				x		x		3,5	2
22	x			x						3	2
32	x	x				x				3	3
42	x									3	1
80/498	xx									3	2
94	xx	x	x	xx	x		x			3,4	12
95	xx						x			4	2
96							x			11	-
99		x					x	x		4,7	2
100		x								3	1
111	x					x	x			3	3
112								x		7	-
114	x									5	1
123/124	x									3	2
286				x					x	4	1
290			x							3	1
417							x			11	-
420							x			11	-
421							x			11	-
422		x								3	1
424							x			11	-
425	x	x	x			x	x			7	2
430						xx	x			7	2
435		xx				x	x	x		3,7,11	5
436							x			7	-
437				x	x					11	2
438		x				x	x			7	2

Location	Projectile Points[1] SN 123	CN 123	BN 123	Stem 123	SL 123	LN 123	Other Artifacts FS[2]	GB[3]	Hist	Collection	N[4]
10BR											
446	x	x								7	2
447	x									11	1
454							x			11	-
456							x			11	-
461		x								1	1
464		x								2	1
472							x			11	-
484			x							11	1
487		x								3	1
494	xxx	xx		xx	xx	xxx	x	x	x	1	62
497	xx	xx	xx	x				x	x	3,4	17
499							x			11	-
500		xx				x	x			3	3
502				x			x		x	11	-
503				x					x	1,5	1
506	x									1	1
506/507						x				4	1
508					x					7	2
509							x			11	-
516	xx	xx	x	x	xx	xx	x			3	51
517							x			7	-
519		x		x		x				3	4
522	xx	xx	x	xx	x	xx	x	x		3,7	52
524						x	x			5	2
527	x									6	1
532	x	xx		x	x	x	x			3	12
543	x									11	1
544				x			x			11	1
562			x							11	1
A[5]		xx		x						3	6
B	x	xx				xx				3	15
C		x			x	x				3	3
D						x				3	1
E	x									3	1
F						x				3	1
G		xx				x				3	3
H		xx		x						3	4
I	x	x	x							3	3
J	x									3	1
K	xx		x	x	x					4	13
L			x							4	1
M		x								4	1

Location	Projectile Points[1] SN 123	CN 123	BN 123	Stem 123	SL 123	LN 123	Other Artifacts FS[2]	GB[3]	Hist Collection	N[4]
N				x					5	2
O	x					x			6	2
P				x					5	1
Q				x					4	1
R				x		x	x		3	1
S	x	xx		xx		xx	x	x	3	15
T	x	xxx	x	xx		xx	x	x	3	41
U	xxx	xxx	xxx	xxx	x	xx	x		2,3	323
V		x				x	x		3	2
W						x	x		7	1
X	x				x	x			3,5	2
Y							x		2	-
Z										

[1] Type Codes: SN = Side Notched
CN = Corner Notched
BM = Basal Notched
SL = Shouldered Lanceolate
LN = Lanceolate

1 = $\leq$ 2. cm
2 = > 2. $\leq$ 4. cm.
3 = > 4. cm.

[2] FS = Fire

[3] GB = Ground/Battered stone

[4] Projectile Points only

[5] See Figure 38 and Appendix C for Key

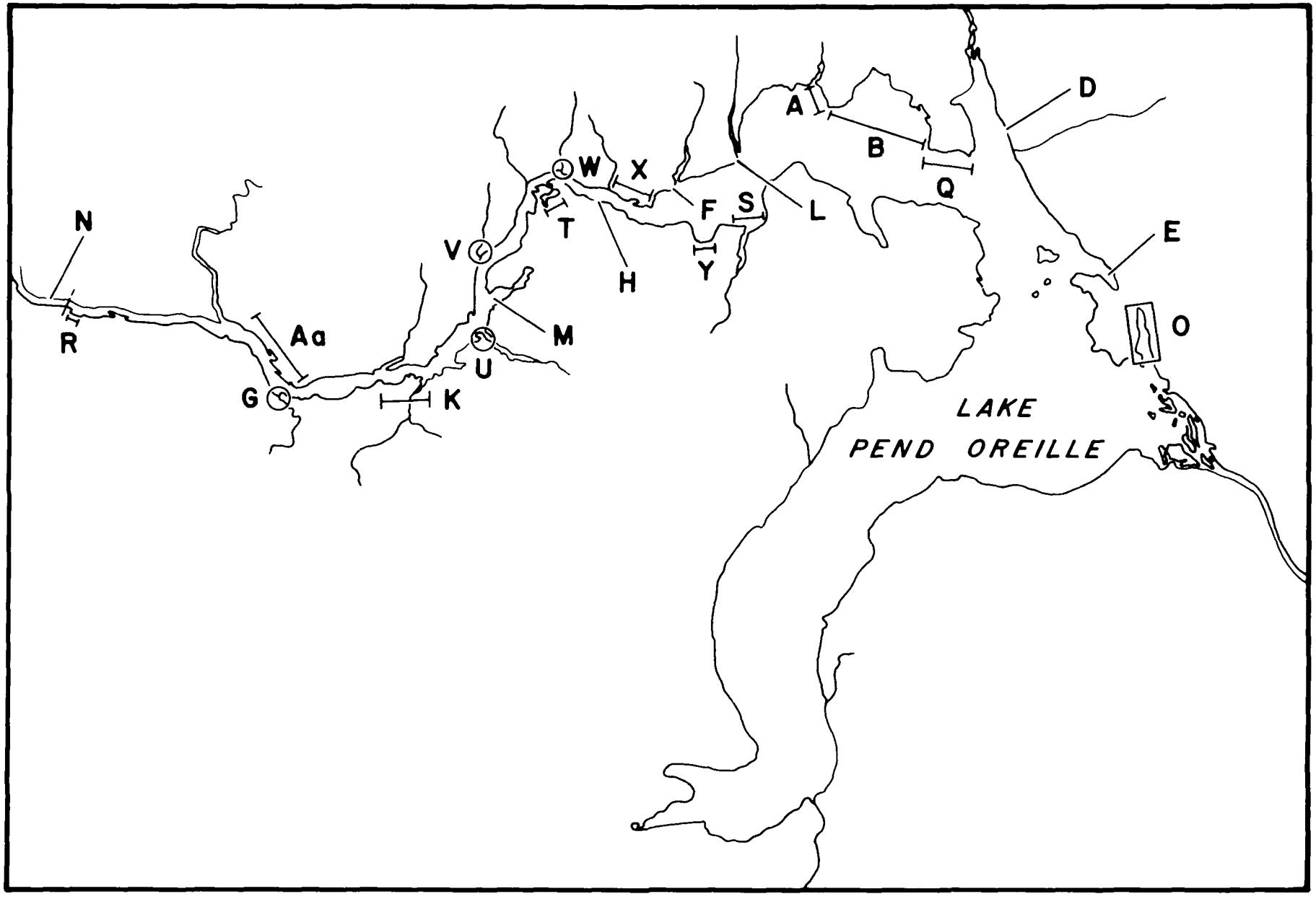


Figure 38. General areas and unnumbered locations reported by collectors.

the last area examined. The survey was completed as the pool level rose and vegegation became established on exposed beaches. One collector who concentrates on the beaches from Sunnyside to Boyer Slough noted that these areas had been more silt covered than usual in the spring of 1985 because there had been few storms to scour the beaches and affect the cutbanks during the previous fall as the pool level was dropped.

The collections also contained artifacts from non-project area locations. Projectile points noted came from Grouse Creek, north of the project area, near Plummer and Harrison, Idaho and Usk, Washington. Some collections contained material from as far afield as the Dakotas, California, Texas, and Mexico. Artifacts were acquired through personal collecting and informal trading. They were also acquired by trade or purchase from semi-professional dealers who buy collections for retail sale.

PROJECTILE POINTS

Table 16 presents artifact and site or area associations. The majority of the sites have only a few projectile points associated with them. The largest number of points comes from a single collection attributed, somewhat tenuously in its entirety, to Area U. Other sites and areas have much stronger associations, particularly when separate collections confirm stylistic trends. For example the artifacts associated with 10BR494 also come from a single collection yet in this instance the collector frequents only a few areas along the river and has a good recollection of where the artifacts were found.

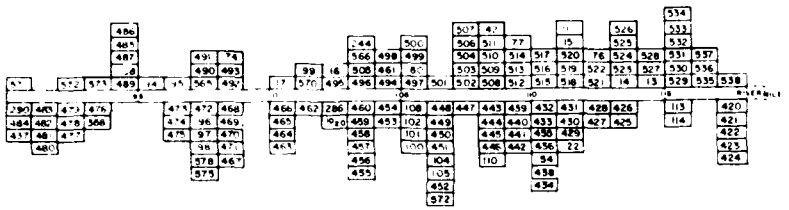
There appears to be more variation in the number of kinds of projectile points as the sample size increases, perhaps indicating stratified sites representing long time spans. On the other hand we cannot judge the sites with very small samples as representing only the time period of their associated projectile points. The points provide a minimum estimate of age. If we arbitrarily designate five as the minimum number of points required to assign a location to a time period, only a few of the sites can be interpreted as representing a single time span (Figure 39). Encouragingly, the time span estimated for 10BR94, the only archaeologically tested site in the group, is similar to that derived from test excavations. Component I pre-dated 6700 B.P. and Component II was interpreted as having a maximum date of 5000 B.P. However, a younger radiocarbon date of 1230±70 was also obtained (Hudson et al. 1980).

Figure 40 presents the distribution of the potentially oldest styles of projectile points among the Pend Oreille River sites. Large lanceolate or stemmed points were also found on the lake at 10BR32, at the mouth of Trestle Creek, and Areas A, B, C, D, and O. All areas on the river have large side notched, stemmed, shouldered lanceolate or lanceolate points with the exception of Areas L, M, and Y (Table 16). The most commonly found large point among the sites is the large lanceolate. It is also the style most often unaccompanied by other large points. As a class this category would benefit from more rigorous analysis. The Cascade style may be more long lived than previously thought as we noted in the class discussion and not so clear a temporal marker.

FIGURE 39

Potential ages of prehistoric sites on the Pend Oreille River based on five or more projectile points.

Site	N	Age			
10BR-		Late 200-2000 B.P.	Middle 2000-5000 B.P.	5000-8000 B.P.	Early <8000 B.P.
5	6	———			
13	10	———	———	———	
14	14	———	———	———	———
15	16		———	———	
16	41	———	———	———	———
94	12		———	———	———
425	8		———		
435	5		———	———	
494	62	———	———	———	———
497	17	———	———		
516	51		———	———	———
522	52		———	———	———
A	6		———		
B	15		———	———	
K	13	———	———		
S	15		———	———	———
T	41	———	———	———	———
U	323	———	———	———	———



Distribution of sites (10BR) by river mile.

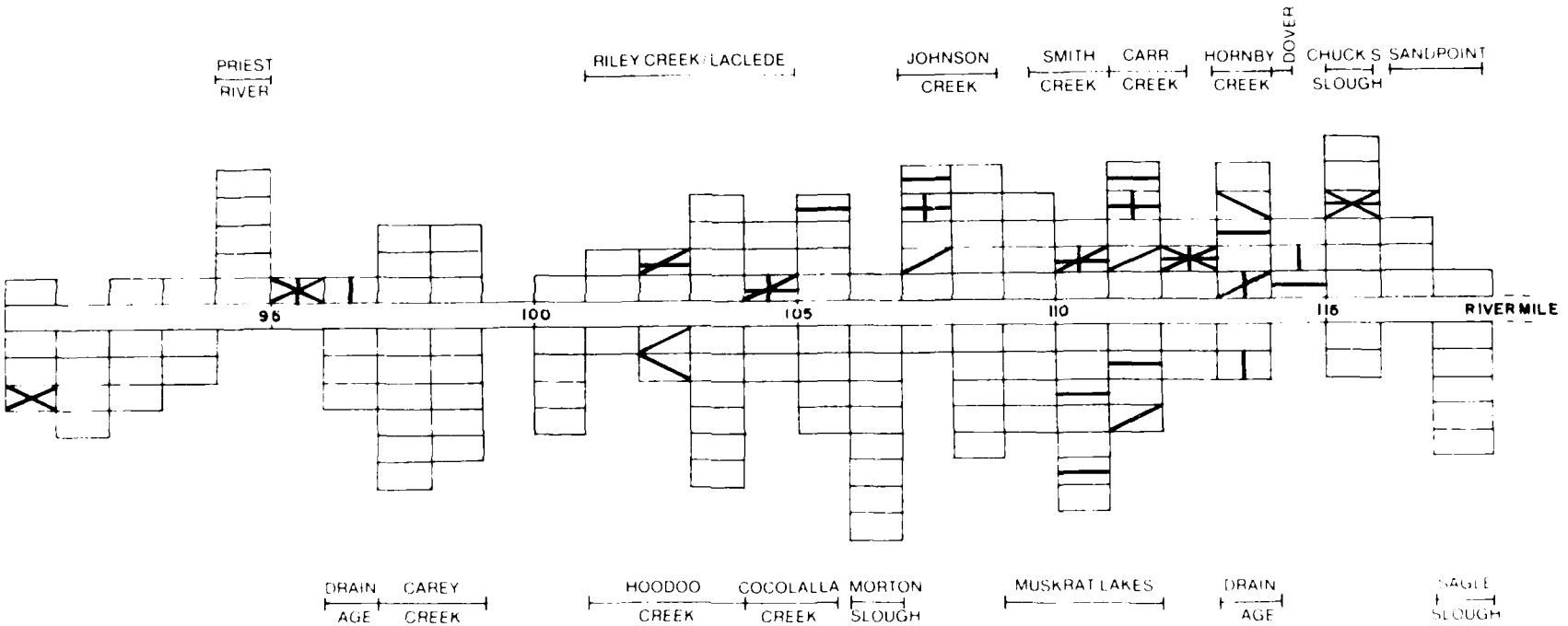


Figure 40. Distribution of large stemmed, shouldered lanceolate, lanceolate, and side notched points among Pend Oreille River sites.

Instances of large side notched or large stemmed points unaccompanied by other large forms are next most common after the large lanceolate. Various combinations of these older styles are found at the remaining sites. All four forms were found only at 10BR527. Medium sized points were associated with all of these sites except 10BR286, 437, 438, 503, 506/507, 524, and 527. Small points never occurred without medium sized ones and were found only at sites 10BR13, 14, 16, and 494.

The Older Sites

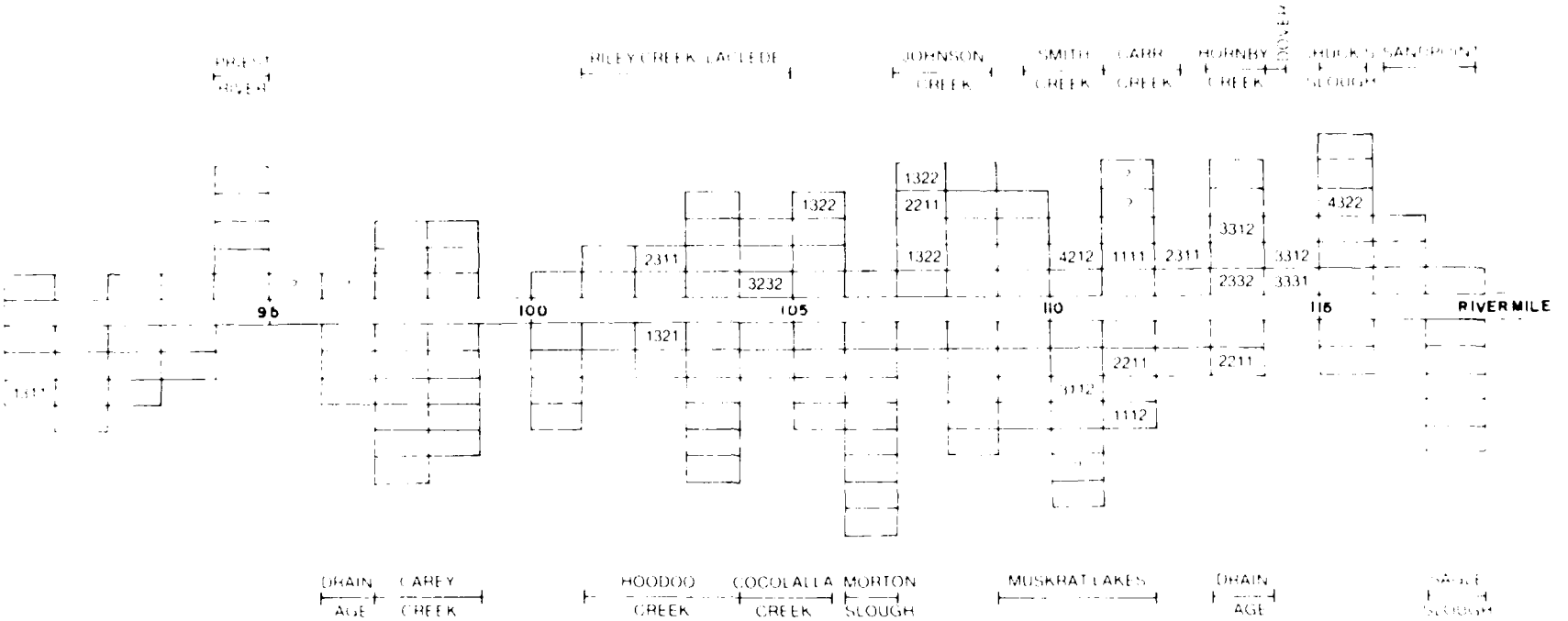
We know from survey data that sites on the Pend Oreille River most often have fine grained silt and clay beach sediments, cutbanks less than a half meter high, fire modified rock (FMR) densities from 20 to 39 per square meter, and lack FMR concentrations representing structured cultural features (Miss and Hudson 1986:Table 4). A similar pattern is followed by the sites with older style points for which we have data except the density of FMR is lower with fewer than 20 per square meter (Figure 41).

Further examining the variables for these sites, we find relatively high frequencies of cutbanks greater than a half meter, sand and cobble beach deposits, and sites with intact cultural features. Higher cutbanks imply more undisturbed sediments within reach of excavation at low water and stratigraphic sequences available for interpretation. Unfortunately they are also an indication of more matrix to be affected by factors such as construction, pool level fluctuations and erosion.

Sand deposits may be especially important to geoarchaeological reconstruction in the project area. If they correspond to post-glacial aeolian deposits as found elsewhere in the region (Mierendorf and Cochran 1984), we might expect them to contain some of the oldest cultural material in the project area. Sand deposits have also recently been shown to be important to a predictive model of site location and land use downriver in the Calispell Valley. There, sites with earth ovens are closely associated with sand deposits. Camas, harvested from the fine grained sediments of the valley floor, was processed in cobble lined earth ovens constructed on the soft, unconsolidated easily dug sands which ring the valley. The deposits are the result of impoundment of water within the valley, by hydraulic dams, sometime before 5000 B.P. (Thoms and Burtchard 1986).

Potentially sites with older cultural material and deposits could contain information to document the transition from highly mobile hunters to more sedentary lifestyle as greater reliance was placed on locally available resources, both plant and animal. The sites might also contain clues about the chronology, origins, and ramifications of cultural practices such as camas processing to allow long term food storage. In line with this inquiry is the importance of cobbles to the construction of earth ovens. Cobble deposits have been a focus for human activity.

Structured cultural features suggest we may acquire some data about site formation and activity patterning without excavation. Mapping and surface collecting of such sites would be a valuable preliminary



Variables are read as follows: cutbank height, beach deposit, FMR frequency, and structured FMR.

Cutbank height
1 = < 0.5m
2 = 0.5 to 1.0m
3 = >1.0m
4 = n/a

Beach deposit
1 = Cobbles/gravel
2 = Sand
3 = Fine grained silts and clays

FMR frequency
1 = 1-19/m^2
2 = 20-29/m^2
3 = 40/m^2

Structured FMR
1 = Yes
2 = No

? Indeterminate

Figure 41. Descriptive variables for potentially older sites on the Pend Oreille River.

to excavation in an area where fine grained deposits make excavation slow and where private landowners may object to excavation.

NON-PROJECTILE POINT ARTIFACTS

Only a few of the non-projectile point artifacts are chronologically sensitive. Association of bolas stones with 10BR522 further enhances its interpretation of age as does the possible atlatl weight with 10BR435 (Table 17). A nephrite adze from 10BR17 may indicate a late to middle period component. Most of the remaining flaked and ground stone tools suggest a variety of activities characteristic of residential sites including vegetable food collecting and processing, lithic manufacture and maintenance, bone and woodworking, and hide processing as well as hunting and fishing.

HISTORIC ARTIFACTS

The historic artifacts also change our perceptions of some of the sites (Table 15). Sites 10BR494, 497, 518 and 519 were not suspected of having historic components (Miss and Hudson 1986:Figure 8). Other historic material is associated with known, regionally significant sites such as Seneaquoteen and the Laclede ferry (Area K, 10BR16/496). Many of the items such as gun flints, glass beads, metal ax heads and clay pipes may represent the early fur trade.

Very tight chronological control is possible for excavations in the region because of the identification of St. Helen's T tephra dating to 1800 A.D. (Cochran 1984, Mierendorf 1985). It may be possible to gather information about cultural patterns and activities before and after actual Euroamerican presence in the area.

Another area of interest is suggested by the Chinese artifacts. A Chinese railroad workers' camp was known to have been located near Hope, Idaho in the 1890s. The recent survey and the collections suggest further examination of Denton Slough (Area O) for its actual location. An interesting problem in variation in site formation processes might be found among the slough sites where a Chinese-Euroamerican occupation is probably superimposed on an earlier Native American one.

A similar situation exists for Area S, the site of the former town of Venton, at the mouth of Sagle Slough. A railroad camp and the first post office in the area were located here. Chinese artifacts were not expected on the basis of historic accounts. The survey and collections have shown there are Native American, Chinese, and Euroamerican contributions to the sites.

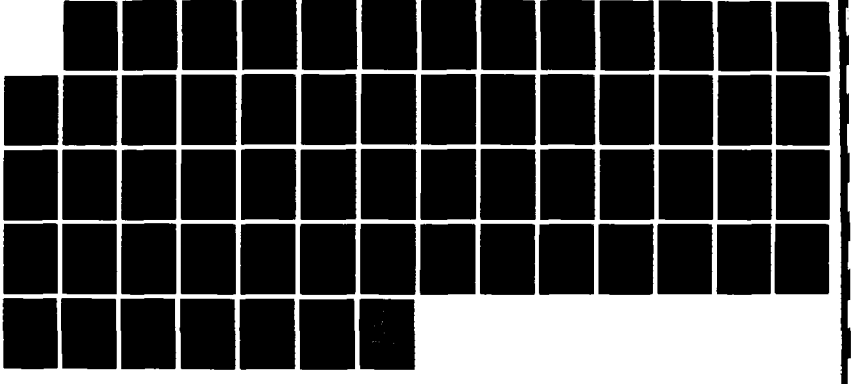
Table 17

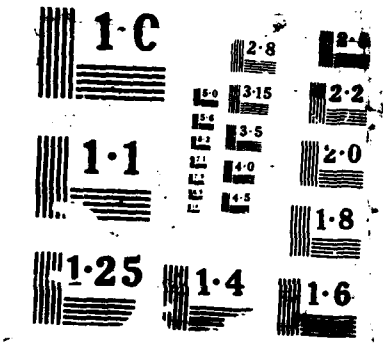
Distribution of non-projectile point artifacts

ARTIFACT	LOCATION: Site																														Area						
	13	14	15	16	17	94	96	99	111	112	417	420	421	425	435	436	456	472	494	497	500	502	509	516	517	522	524	532	544	574	C	O	R	S	T	U	V
A. Flaked stone																																					
Biface	x		x				x																	x		x					x	x			x	x	x
Knife																				x						x	x								x	x	
Preform	x	x		x																x						x								x	x	x	
Uniface																																			x		
Drill				x		x			x											x						x				x					x		
Scraper			x																	x						x		x		x			x		x	x	x
Graver																										x		x								x	
Spall/Tabular knife																	x						x														
Spokeshave																										x										x	
Blade																										x											
Core																x																					
Chopper																																					
Flaked																																					
Cobble																																					
Modified																										x											
Flake												x	x			x	x	x		x		x							x					x		x	
B. Ground/Battered Stone																																					
Maul/Pestle															x					x															x		
Netweight			x																							x											
Abrader/Whetstone																																					
Adze					x																																
Pipe										x																											
Bead						x																															
C. Other																																					
Bolas Stone																										x											
Digging Stick Handle																										x											
Altatl Weight															x																						
Rectangular stone											x																										
Pendant								x																													

AD-A189 766 CULTURAL RESOURCES COLLECTION ANALYSIS ALBENI FALLS PROJECT NORTHERN IDAHO(U) CULTURAL RESOURCES CONSULTANTS INC SANDPOINT ID C J MISS ET AL. 1987 2/2

UNCLASSIFIED DACW67-85-M-0024 F/G 5/6 NL

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1·1
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2·8
3·15
3·5
4·0
2·2
2·0
1·8
1·6

CONCLUSIONS

The collections, in conjunction with recent surveys, have allowed us to better understand the prehistory and history of the Albeni Falls Dam project area. We have been able to broadly outline a chronology on the basis of the projectile points and to suggest shifting regional influences. It may be that the latter is a simplistic approach and that the artifacts should be assessed with less emphasis on regional similarities. We must wait for temporal control before this is possible. In the meantime, comparison has allowed us to recognize the time depth of the prehistory of the area and to sketch a model of land use over the last 10,000 years. In addition, the collections reflect the activities of Euroamerican inhabitants and major regional historic events of the last century and a half.

While we cannot condone the physical destruction of sites for their artifacts, the systematic collection of surface artifacts, nor especially the commercial artifact market about which we were told by collectors, we cannot ignore the information available. More data were acquired about the area prehistory from the collections than from intensive surveys. The collections rapidly provided the most comprehensive information available short of major excavation and systematic surface collection.

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APPENDIX A

Collection Descriptions and Data Lists

APPENDIX A
Collection 1

The majority of the artifacts were picked up from the beach at 10BR494 near the owner's home. A single siltstone corner notched point (212, length 4.0) was collected from 10BR461. Other projectile points of note are the large stemmed and lanceolate forms shown in Figure 14, all are from 10BR494 except the first which is from 10BR566; and a large side notched point (130, length 5.0 cm) manufactured from transparent quartz crystal from 10BR506.

Other artifacts of interest include a chopper collected when a sewer line was dug at 10BR494; glass seed beads from 10BR94 reportedly in association with numerous bone fragments suggesting post-Euroamerican contact Native American burial; gun flints from the mouth of Johnson Creek (10BR503); rectangular stones form 10BR494 and the mouth of Riley Creek (10BR99); and human skull fragments and other mammal bone fragments from 10BR494. A burial was reported to the University of Idaho at 10BR494 in the late 1960s, however no site was recorded at that time. The collection is also notable for including numerous tabular knives. The collector is able to verify locations for many of the artifacts and has an active interest in the prehistory of the area and the meaning of artifacts collected.

Non-projectile point artifacts

	Number/+-	Site Assoc.	Comment
Flaked Stone			
Biface		10BR494	
Preform	+	10BR494	
Spall/tabular knives	23	10BR494	
Blade	1	10BR494	
Chopper	1	10BR494	From sewer line excavation
Ground/Battered Stone			
Hammerstone	4	10BR494	
Pestle	1	10BR494	
Incised Stone	2	10BR494	
Rectangular Stones	18	10BR494, 10BR99	
Bone			
Artiodactyl long bone frags		10BR494	
Historic			
Gunflint		10BR503	
Jar lid, E.P. Co		10BR494	
Jar base, Aqua Glass		10BR461	

AB
vg

Photographs:
Black & White Roll 1, Frames 9-17
Color Roll 1, frames 13-20

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
1 0 0 0 0	2.0	1.0	0.5	4	1
1 1 0 0 0	1.5	1.0	0.5	1	
1 1 0 0 0	2.0	1.0	0.5	1	
1 1 0 0 0	2.0	1.0	0.5	1	
1 1 0 0 0	2.0	1.0	0.5	1	
1 1 0 0 0	2.0	1.5	0.5	1	
1 1 0 0 0	2.0	1.0	0.5	1	
1 1 0 0 0	3.0	2.0	0.5	1	
1 1 0 0 0	3.0	1.0	0.5	1	
1 1 0 0 0	3.0	1.5	0.5	1	
1 1 0 0 0	3.0	1.5	0.5	1	
1 1 0 0 0	3.0	2.0	0.5	2	
1 1 0 0 0	3.0	2.0	0.5	3	
1 1 0 0 0	3.5	2.0	0.5	1	
1 1 0 0 0	5.0	2.0	1.0	4	
1 2 0 0 0	2.5	1.5	0.5	1	
1 2 0 0 0	4.0	1.5	0.5	1	
1 2 0 0 0	4.0	2.0	0.5	4	
1 3 0 0 0	1.5	1.5	0.5	1	
1 3 0 0 0	2.0	1.0	0.5	4	
1 3 0 0 0	2.5	1.5	0.5	1	
1 3 0 0 0	2.5	1.5	0.5	5	
1 3 0 0 0	3.0	2.0	0.5	3	
1 3 0 0 0	4.0	2.5	0.5	1	
1 3 0 0 0	5.0	2.5	0.5	5	
1 3 0 0 0	5.0	2.5	0.5	6	
2 1 0 0 0	2.5	1.0	0.5	1	
2 1 0 0 0	2.5	2.5	0.5	4	
2 1 0 0 0	3.0	1.5	0.5	1	
2 1 0 0 0	3.0	2.5	0.5	3	
2 1 0 0 0	3.5	2.5	0.5	3	
2 1 0 0 0	4.0	2.5	0.5	3	
2 1 0 0 0	4.5	2.5	0.5	1	
2 1 2 0 0	4.0	1.5	0.5	3	
2 2 0 0 0	3.5	2.0	0.5	1	
2 2 0 0 0	4.0	2.0	0.5	1	
2 2 0 0 0	4.0	2.0	0.5	1	
2 2 0 0 0	5.0	2.0	0.5	0	
2 2 0 0 0	5.5	2.5	0.5	3	
2 3 0 0 0	2.5	2.0	0.5	1	
4 1 1 0 0	2.5	1.5	0.5	4	
4 1 1 0 0	7.0	3.0	1.0	3	
4 1 1 0 0	8.0	3.0	1.0	2	
4 1 2 0 0	2.5	1.0	0.5	1	
4 1 2 0 0	3.0	2.0	0.5	1	
4 1 2 0 0	3.0	1.5	0.5	6	
4 1 2 0 0	3.0	2.0	0.5	1	
4 1 2 0 0	3.5	2.0	0.5	4	
4 1 2 0 0	7.0	3.0	1.0	1	
4 1 2 0 0	8.0	3.0	1.0	3	
4 1 3 0 0	3.0	1.5	0.5	1	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

- 1 Siltstone
- 2 Argillite
- 3 Cryptocrystalline silica (CCS)
- 4 Obsidian
- 5 Quartz/quartzite
- 6 Other

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
4 1 3 0 0	3.0	1.5	0.5	1	1
4 2 2 0 0	2.5	1.5	0.5	1	
4 2 2 0 0	3.0	1.5	0.5	1	
4 3 2 0 0	2.5	1.5	0.5	1	
5 1 0 0 0	2.0	1.0	0.5	3	
5 1 0 0 0	3.0	1.5	0.5	1	
5 1 0 0 0	3.0	2.0	0.5	7	
6 0 0 0 0	3.0	1.5	0.5	1	
6 0 0 0 0	3.0	1.0	0.5	1	
6 0 0 0 0	3.5	1.5	0.5	1	
6 0 0 0 0	4.5	1.5	0.5	1	
6 0 0 0 0	5.0	2.0	0.5	1	
6 0 0 0 0	6.0	2.5	1.0	1	
6 0 0 0 0	7.0	3.0	1.0	1	
6 0 0 0 0	8.0	2.5	1.0	1	
6 1 0 0 0	2.0	1.0	0.5	1	
6 1 3 2 0	6.0	2.5	1.0	3	
6 2 3 0 0	7.0	3.0	1.0	3	
6 3 0 0 0	4.5	2.5	0.5	4	
6 3 1 2 0	4.5	2.5	0.5	1	
6 5 3 0 0	8.0	2.5	1.0	3	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

1 Siltstone
2 Argillite
3 Cryptocrystalline silica (CCS)
4 Obsidian
5 Quartz/quartzite
6 Other

APPENDIX A
Collection 2

All of the artifacts are attributed to the general area of the mouth of Cocolalla Creek by the collector who lived nearby for 30 years. Questioned more closely, the area was specified to include both sides of the slough below the Spokane International Railroad bridge and the river banks up and downstream from the creek mouth including sites 10BR454 and 10BR453.

Non-Projectile Point Artifacts

Flaked Stone	No.	Comment
Biface	4	
Preform	54	Figure 20
Knife	2	
Drill	30	
Graver	5	
Scraper	11	
Spokeshave	2	

Photographs:

Black & White	Roll 1,	frames 18-20
	Roll 2,	frames 1-16
Color	Roll 1,	frames 21-25
	Roll 3,	frames 1-16

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
1 1 0 1 1	2.0	0.0	0.0	3	2
1 1 0 1 1	2.0	0.0	0.0	4	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	1	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	1	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	1	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	1	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	1	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	2	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	2	
1 1 0 1 1	2.0	0.0	0.0	2	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	4	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	1	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	1	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	0.0	0.0	3	
1 1 0 1 1	3.0	0.0	0.0	1	
1 1 0 1 1	3.0	0.0	0.0	3	
1 1 0 1 1	3.0	0.0	0.0	1	
1 1 0 1 1	3.0	0.0	0.0	3	
1 1 0 1 1	3.0	1.0	0.0	1	
1 1 0 1 1	3.0	0.0	0.0	3	
1 1 0 1 1	3.0	0.0	0.0	3	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

- 1 Siltstone
- 2 Argillite
- 3 Cryptocrystalline silica (CCS)
- 4 Obsidian
- 5 Quartz/quartzite
- 6 Other

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
1 1 0 1 1	3.0	0.0	0.0	3	2
1 1 0 1 1	3.0	0.0	0.0	3	
1 1 0 1 1	3.0	0.0	0.0	3	
1 1 0 1 1	3.0	0.0	0.0	3	
1 1 0 1 1	3.0	0.0	0.0	3	
1 1 0 1 1	3.0	0.0	0.0	2	
1 1 0 1 1	3.0	0.0	0.0	2	
1 1 0 1 1	3.0	0.0	0.0	1	
1 1 0 1 1	3.0	0.0	0.0	1	
1 2 0 1 1	2.0	0.0	0.0	1	
1 2 0 1 1	3.0	0.0	0.0	1	
1 2 0 1 1	3.0	0.0	0.0	3	
1 2 0 1 1	3.0	0.0	0.0	3	
1 3 0 1 1	2.0	0.0	0.0	1	
1 3 0 1 1	2.0	0.0	0.0	3	
1 3 0 1 1	2.0	0.0	0.0	3	
1 3 0 1 1	2.0	0.0	0.0	1	
1 3 0 1 1	2.0	0.0	0.0	1	
1 3 0 1 1	2.0	0.0	0.0	1	
1 3 0 1 1	2.0	0.0	0.0	3	
1 3 0 1 1	2.0	0.0	0.0	3	
1 3 0 1 1	2.0	0.0	0.0	3	
1 3 0 1 1	2.0	0.0	0.0	3	
1 3 0 1 1	2.0	0.0	0.0	3	
1 3 0 1 1	2.0	0.0	0.0	3	
1 3 0 1 1	2.0	0.0	0.0	3	
1 3 0 1 1	2.0	0.0	0.0	3	
1 3 0 1 1	2.0	0.0	0.0	3	
1 3 0 1 1	2.0	0.0	0.0	3	
1 3 0 1 1	3.0	0.0	0.0	3	
1 3 0 1 1	3.0	0.0	0.0	2	
1 3 0 1 1	3.0	0.0	0.0	3	
1 3 0 1 1	3.0	0.0	0.0	1	
1 3 0 1 1	3.0	0.0	0.0	1	
1 3 0 1 1	3.0	0.0	0.0	3	
1 3 0 1 1	3.0	0.0	0.0	3	
1 3 0 1 1	3.0	0.0	0.0	3	
1 3 0 1 1	3.0	0.0	0.0	2	
1 3 0 1 1	3.0	0.0	0.0	3	
1 3 0 1 1	3.0	0.0	0.0	3	
1 3 0 1 1	3.0	0.0	0.0	3	
1 3 0 4 1	4.0	0.0	0.0	2	
1 5 0 2 2	4.0	0.0	0.0	4	
2 1 0 1 1	2.0	0.0	0.0	2	
2 1 0 1 1	3.0	0.0	0.0	1	
2 1 0 1 1	3.0	0.0	0.0	1	
2 1 0 1 1	3.0	0.0	0.0	1	
2 1 0 1 1	3.0	0.0	0.0	1	
2 1 0 1 1	3.0	0.0	0.0	1	
2 1 0 1 1	3.0	0.0	0.0	1	
2 1 0 1 1	3.0	0.0	0.0	2	

TYPE DIMENSIONS

A - OUTLINE
1 Side notched
2 Corner notched
3 Basal notched
4 Stemmed
5 Shouldered lanceolate
6 Lanceolate

B - BASAL EDGE
1 Straight
2 Convex
3 Concave
4 Notched
5 Point

C - STEM EDGE
1 Straight
2 Expanding
3 Contracting
0 Not applicable

D - CROSS SECTION
1 Plano-convex/triangular
2 Biconvex
3 Diamond
4 Bi-planar

E - BLADE FLAKING PATTERN
1 Variable
2 Collateral
3 Transverse

MATERIAL TYPE

1 Siltstone
2 Argillite
3 Cryptocrystalline silica (CCS)
4 Obsidian
5 Quartz/quartzite
6 Other

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
2 1 0 1 1	3.0	0.0	0.0	2	2
2 1 0 1 1	3.0	0.0	0.0	3	
2 1 0 1 1	3.0	0.0	0.0	3	
2 1 0 1 1	3.0	0.0	0.0	4	
2 1 1 1 1	2.5	2.5	0.5	3	
2 1 1 1 1	3.0	1.5	0.5	1	
2 1 1 1 1	3.0	1.5	0.5	1	
2 1 1 1 1	3.0	1.5	0.5	1	
2 1 1 4 1	3.5	2.0	0.5	2	
2 1 1 2 1	4.0	2.0	0.5	3	
2 1 2 1 1	1.0	1.5	0.5	3	
2 1 2 1 1	1.0	1.5	0.5	3	
2 1 2 1 1	1.0	1.5	0.5	3	
2 1 2 1 1	1.0	1.5	0.5	3	
2 1 2 1 1	1.0	1.5	0.5	3	
2 1 2 1 1	1.0	1.5	0.5	3	
2 1 2 1 1	1.0	1.5	0.5	3	
2 1 2 1 1	1.5	1.5	0.5	1	
2 1 2 1 1	2.0	1.5	0.5	1	
2 1 2 1 1	2.0	1.5	0.5	1	
2 1 2 1 1	2.0	1.5	0.5	5	
2 1 2 1 1	2.0	1.5	0.5	1	
2 1 2 1 1	2.0	1.5	0.5	1	
2 1 2 1 1	2.0	1.5	0.5	4	
2 1 2 1 1	2.5	1.5	0.5	3	
2 1 2 2 2	2.5	2.0	0.5	1	
2 1 2 1 1	2.5	1.5	0.5	3	
2 1 2 1 1	2.5	1.5	0.5	1	
2 1 2 1 1	2.5	2.0	0.5	3	
2 1 2 1 1	2.5	1.5	0.5	1	
2 1 2 2 1	2.5	2.0	0.5	1	
2 1 2 1 1	2.5	1.5	0.5	3	
2 1 2 2 1	2.5	2.0	0.5	1	
2 1 2 4 1	3.0	2.0	0.5	2	
2 1 2 1 1	3.0	2.0	0.5	3	
2 1 2 4 1	3.0	1.5	0.5	2	
2 1 2 2 2	3.0	3.0	0.5	3	
2 1 2 2 1	3.0	3.0	0.5	1	
2 1 2 2 1	3.0	2.0	0.5	1	
2 1 2 4 1	3.0	0.0	0.0	2	
2 1 2 2 1	3.0	2.0	0.5	3	
2 1 2 2 1	3.0	2.5	0.5	3	
2 1 2 2 1	3.0	3.0	0.5	3	
2 1 2 1 1	3.5	1.5	0.5	3	
2 1 2 4 1	3.5	2.5	0.5	3	
2 1 2 4 1	3.5	2.0	0.5	2	
2 1 2 2 1	4.0	2.0	0.5	3	
2 1 2 4 1	4.0	0.0	0.0	1	
2 1 2 1 2	4.0	2.0	0.5	3	
2 1 2 4 1	4.0	0.0	0.0	2	
2 1 2 1 1	4.0	2.0	0.5	3	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

- 1 Siltstone
- 2 Argillite
- 3 Cryptocrystalline silica (CCS)
- 4 Obsidian
- 5 Quartz/quartzite
- 6 Other

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
2 1 2 4 1	4.0	0.0	0.0	2	2
2 1 2 4 1	4.0	0.0	0.0	3	
2 1 2 1 2	4.5	2.0	0.5	1	
2 1 2 1 1	4.5	2.0	0.5	3	
2 2 1 1 1	3.0	3.0	0.5	1	
2 2 1 2 1	3.0	3.0	0.5	3	
2 2 1 4 1	3.0	2.5	0.5	2	
2 2 1 4 1	3.0	2.0	0.5	2	
2 2 1 4 1	3.0	2.0	0.5	2	
2 2 1 1 1	3.5	3.0	0.5	3	
2 2 2 1 1	1.0	0.0	0.0	3	
2 2 2 1 1	2.0	0.0	0.0	1	
2 2 2 1 1	2.0	0.0	0.0	3	
2 2 2 1 1	2.0	0.0	0.0	4	
2 2 2 1 1	2.0	0.0	0.0	1	
2 2 2 1 1	2.0	0.0	0.0	3	
2 2 2 1 1	2.0	0.0	0.0	3	
2 2 2 1 1	2.0	0.0	0.0	3	
2 2 2 1 1	3.0	0.0	0.0	1	
2 2 2 1 1	3.0	0.0	0.0	1	
2 2 2 1 1	3.0	0.0	0.0	1	
2 2 2 1 1	3.0	0.0	0.0	1	
2 2 2 1 1	3.0	0.0	0.0	3	
2 2 2 1 1	3.0	0.0	0.0	3	
2 2 2 1 1	3.0	0.0	0.0	3	
2 2 2 2 2	3.0	3.0	0.5	3	
2 2 2 1 1	3.0	0.0	0.0	3	
2 2 2 1 1	3.0	0.0	0.0	3	
2 2 2 2 1	3.0	2.0	0.5	3	
2 2 2 1 1	3.0	0.0	0.0	4	
2 2 2 1 1	3.0	0.0	0.0	4	
2 2 2 1 1	3.0	0.0	0.0	3	
2 2 2 1 1	3.0	0.0	0.0	4	
2 2 2 1 1	3.0	0.0	0.0	1	
2 2 2 2 1	3.0	2.0	0.5	1	
2 2 2 2 1	3.0	2.5	0.5	3	
2 2 2 1 1	3.5	2.0	0.5	3	
2 2 2 2 1	3.5	2.0	0.5	3	
2 2 2 1 1	4.0	0.0	0.0	1	
2 2 2 1 1	4.0	0.0	0.0	1	
2 2 2 1 1	4.0	0.0	0.0	3	
2 2 2 1 1	4.0	0.0	0.0	3	
2 2 2 1 1	4.0	0.0	0.0	1	
2 2 2 1 1	4.0	0.0	0.0	3	
2 2 2 1 1	4.0	0.0	0.0	3	
2 2 2 1 1	4.0	0.0	0.0	1	
2 2 2 1 1	4.0	0.0	0.0	3	
2 2 2 1 1	4.0	0.0	0.0	3	
2 2 2 1 1	4.0	0.0	0.0	3	
2 2 2 1 1	4.0	0.0	0.0	1	
2 2 2 1 1	4.0	0.0	0.0	3	

TYPE DIMENSIONS

A - OUTLINE
1 Side notched
2 Corner notched
3 Basal notched
4 Stemmed
5 Shouldered lanceolate
6 Lanceolate

B - BASAL EDGE
1 Straight
2 Convex
3 Concave
4 Notched
5 Point

C - STEM EDGE
1 Straight
2 Expanding
3 Contracting
0 Not applicable

D - CROSS SECTION
1 Plano-convex/triangular
2 Biconvex
3 Diamond
4 Bi-planar

E - BLADE FLAKING PATTERN
1 Variable
2 Collateral
3 Transverse

MATERIAL TYPE

1 Siltstone
2 Argillite
3 Cryptocrystalline silica (CCS)
4 Obsidian
5 Quartz/quartzite
6 Other

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
2 2 2 1 1	4.0	3.0	0.0	3	2
2 2 2 2 2	4.0	3.0	0.5	2	
2 2 2 4 1	4.0	3.0	0.5	3	
2 2 2 1 1	4.5	3.0	0.5	3	
2 2 2 1 1	4.5	3.0	0.5	3	
2 2 2 2 1	5.0	2.5	0.5	1	
2 3 2 4 1	3.0	0.0	0.0	3	
2 3 2 1 1	4.0	2.0	0.5	1	
3 1 1 2 2	3.0	2.5	0.5	3	
3 1 1 1 1	3.0	0.0	0.0	3	
3 1 1 4 1	4.5	2.5	0.5	2	
3 1 2 1 1	2.0	0.0	0.0	3	
3 1 2 1 1	2.0	0.0	0.0	3	
3 1 2 1 1	3.0	0.0	0.0	3	
3 1 2 1 1	3.0	0.0	0.0	3	
3 1 2 1 1	3.0	0.0	0.0	3	
3 1 2 2 1	3.5	2.5	0.5	3	
3 1 2 2 1	3.5	2.0	0.5	3	
3 1 2 1 1	4.0	0.0	0.0	3	
3 1 2 1 1	4.0	0.0	0.0	3	
3 1 2 4 1	4.0	0.0	0.0	2	
3 1 2 4 1	5.0	0.0	0.0	2	
3 1 2 4 1	5.0	0.0	0.0	2	
3 1 2 2 1	5.5	4.5	1.0	6	
3 2 1 2 1	4.0	2.5	0.5	2	
4 1 1 4 1	2.0	0.0	0.0	2	
4 1 1 1 1	2.0	0.0	0.0	3	
4 1 1 1 1	3.0	0.0	0.0	3	
4 1 1 1 1	3.0	0.0	0.0	1	
4 1 1 1 1	3.0	0.0	0.0	2	
4 1 1 1 1	3.0	0.0	0.0	3	
4 1 1 1 1	3.0	0.0	0.0	3	
4 1 1 1 1	3.0	0.0	0.0	1	
4 1 1 1 1	3.0	0.0	0.0	3	
4 1 1 1 1	3.0	0.0	0.0	3	
4 1 1 1 1	3.0	0.0	0.0	1	
4 1 1 1 1	3.0	0.0	0.0	3	
4 1 1 1 1	4.0	0.0	0.0	1	
4 1 1 1 1	4.0	0.0	0.0	1	
4 1 1 1 1	4.0	0.0	0.0	3	
4 1 1 1 1	4.0	0.0	0.0	1	
4 1 1 1 1	4.0	0.0	0.0	3	
4 1 1 1 1	4.0	0.0	0.0	3	
4 1 1 1 1	4.0	0.0	0.0	3	
4 1 1 1 1	4.0	0.0	0.0	1	
4 1 1 1 1	5.0	0.0	0.0	3	
4 1 1 1 1	5.0	9.0	0.0	3	
4 1 1 1 1	5.0	0.0	0.0	1	
4 1 1 2 1	5.0	0.0	0.0	1	
4 1 1 2 1	5.0	0.0	0.0	1	
4 1 1 2 1	5.0	0.0	0.0	2	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

- 1 Siltstone
- 2 Argillite
- 3 Cryptocrystalline silica (CCS)
- 4 Obsidian
- 5 Quartz/quartzite
- 6 Other

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
4 1 1 2 1	5.0	0.0	0.0	1	2
4 1 2 1 1	4.0	0.0	0.0	1	
4 1 2 1 1	4.0	0.0	0.0	1	
4 5 1 2 1	7.0	0.0	0.0	3	
4 5 3 1 1	1.5	1.0	0.5	1	
4 5 3 1 1	2.0	0.0	0.0	3	
4 5 3 1 1	2.0	0.0	0.0	3	
4 5 3 1 1	2.0	1.5	0.5	4	
4 5 3 1 1	2.0	0.0	0.0	3	
4 5 3 1 1	2.0	0.0	0.0	3	
4 5 3 1 1	2.0	0.0	0.0	3	
4 5 3 1 1	2.0	1.5	0.5	4	
4 5 3 1 1	2.0	1.5	0.5	4	
4 5 3 1 1	2.5	2.0	0.5	2	
4 5 3 1 1	3.0	0.0	0.0	4	
4 5 3 1 1	3.0	0.0	0.0	4	
5 1 3 2 1	5.0	0.0	0.0	1	
5 1 3 2 1	5.0	0.0	0.0	1	
5 1 3 2 2	6.0	0.0	0.0	3	
6 1 3 4 1	3.0	0.0	0.0	2	
6 1 3 4 1	3.0	0.0	0.0	2	
6 2 0 1 1	6.0	0.0	0.0	2	
6 3 0 4 1	3.0	0.0	0.0	2	
6 3 0 4 1	5.0	0.0	0.0	2	
6 3 1 4 1	3.0	0.0	0.0	2	
6 5 3 1 1	3.0	0.0	0.0	3	
6 5 3 1 1	3.0	0.0	0.0	3	
6 5 3 1 1	3.0	0.0	0.0	3	
6 5 3 1 1	3.0	0.0	0.0	3	
6 5 3 1 1	4.0	0.0	0.0	1	
6 5 3 1 1	4.0	0.0	0.0	1	
6 5 3 1 1	4.0	0.0	0.0	1	
6 5 3 1 1	4.0	0.0	0.0	1	
6 5 3 1 1	4.0	0.0	0.0	3	
6 5 3 1 1	4.0	0.0	0.0	3	
6 5 3 1 1	4.0	0.0	0.0	3	
6 5 3 1 1	4.0	0.0	0.0	3	
6 5 3 1 1	4.0	0.0	0.0	3	
6 5 3 1 1	4.0	0.0	0.0	3	
6 5 3 1 1	4.0	0.0	0.0	3	
6 5 3 1 1	4.0	0.0	0.0	3	
6 5 3 1 1	5.0	0.0	0.0	3	
6 5 3 1 1	5.0	0.0	0.0	1	
6 5 3 1 1	5.0	0.0	0.0	1	
6 5 3 1 1	5.0	0.0	0.0	1	
6 5 3 1 1	6.0	0.0	0.0	3	
6 5 3 1 1	7.0	0.0	0.0	3	
6 5 3 1 1	7.0	0.0	0.0	2	
7 3 0 2 1	3.0	0.0	0.0	3	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

1 Siltstone
2 Argillite
3 Cryptocrystalline silica (CCS)
4 Obsidian
5 Quartz/quartzite
6 Other

APPENDIX A
Collection 3

This is the largest collection examined. The owner has attempted to keep track of site provenience, particularly for large stemmed and lanceolate points whose antiquity is understood. Some sorting of points by site has occurred retroactively and several location designations refer to general areas more than to specific sites. Overall, the collection is the most valuable of those examined. It is also more extensive than is apparent here including artifacts from other regional rivers and additional larger cobble and miscellaneous items which we were unable to assess at the time.

Non-Projectile Point Artifacts

Category	Site Association	Comment
Biface	10BR15	Max. length is 9 cm
	Bottle Bay	
	Gypsy Bay	
	10BR522	
	10BR516	
Preform	10BR454	Max. length is 7 cm
	10BR497	
	Gypsy Bay	
	10BR522	
	10BR13	
	10BR14	
	10BR453	
	10BR422/423	
Knife	10BR497	Max. length is 10 cm
	Gypsy Bay	
	10BR522	
Drill	10BR16	
	10BR111	
	10BR522	
	10BR94	
	10BR574	
Graver	10BR532	
	10BR522	
Scraper	10BR15	
	10BR497	
	10BR532	
	10BR522	
	10BR290/437 - Albeni Cove	
	10BR574	
	10BR453	
	10BR516	
	10BR502/503 - Johnson Creek upstream from mouth	

Spokeshave	10BR522	
Blade	10BR522	Max. 8 cm, Min. 2 cm
Flaked Cobble	10BR15	
Modified Flake	10BR532 10BR425 10BR454 10BR500	

Ground/Battered Stone

Category	Site Association	Comment
Abrader/Whetstone	10BR522	See Figure 30
Digging Stick Handle (?)	10BR522	
Bolas Stone	10BR522	3 count

Photographs:

Black & White	Roll 2, frames 17-20
	Roll 3, frames 0-5 & 12, 16
	Roll 4, frames 0-17
	Roll 5, frames 1 & 2
Color	Roll 2, frames 3-19, 21
	Roll 3, frames 17-22
	Roll 4, frames 3-20
	Roll 5, frames 1-16

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
1 1 0 2 2	2.0	2.0	0.5	3	3
1 1 0 2 1	2.0	0.0	0.0	3	
1 1 0 1 1	2.0	1.0	0.5	3	
1 1 0 1 1	2.0	1.0	0.5	3	
1 1 0 1 1	2.0	1.0	0.5	3	
1 1 0 2 1	2.0	1.0	0.5	4	
1 1 0 2 1	2.0	2.0	0.5	3	
1 1 0 1 1	3.0	2.0	1.0	1	
1 1 0 1 1	3.0	2.0	1.0	1	
1 1 0 1 1	3.0	2.0	0.5	1	
1 1 0 1 1	3.0	2.0	1.0	1	
1 1 0 1 1	3.0	2.0	1.0	1	
1 1 0 1 1	3.0	2.0	1.0	1	
1 1 0 1 1	3.0	2.0	0.5	3	
1 1 0 1 1	3.0	0.0	0.0	1	
1 1 0 1 1	3.0	2.0	0.5	1	
1 1 0 1 1	3.0	2.0	1.0	1	
1 1 0 2 1	3.0	2.0	1.0	3	
1 1 0 2 1	3.0	2.0	1.0	1	
1 1 0 2 1	3.0	2.0	1.0	1	
1 1 0 2 2	3.0	2.0	0.5	3	
1 1 0 2 1	3.0	2.0	1.0	1	
1 1 0 2 1	3.0	2.0	1.0	1	
1 1 0 1 2	3.0	2.0	0.5	4	
1 1 0 2 2	3.0	2.0	0.5	3	
1 1 0 2 1	3.3	1.9	0.7	1	
1 1 0 1 4	4.0	2.0	1.0	3	
1 1 0 2 1	4.0	2.0	1.0	2	
1 1 0 2 1	4.0	0.0	0.0	2	
1 1 0 2 1	4.0	2.0	1.0	3	
1 1 0 2 1	4.0	2.0	1.0	3	
1 1 0 1 1	4.0	0.0	0.0	3	
1 1 0 1 1	4.0	0.0	0.0	3	
1 1 0 2 1	4.0	2.0	1.0	2	
1 1 0 1 1	4.0	0.0	0.0	3	
1 1 0 1 1	4.0	2.0	0.5	3	
1 1 0 1 1	4.0	0.0	0.0	3	
1 1 0 2 1	5.0	2.0	1.0	3	
1 1 0 2 2	5.0	0.0	0.0	3	
1 1 1 4 1	4.0	2.0	1.0	1	
1 1 2 2 1	6.0	0.0	0.0	1	
1 1 4 2 1	4.0	3.0	0.5	4	
1 2 0 1 1	2.0	2.0	0.5	3	
1 2 0 1 1	2.0	2.0	0.5	4	
1 2 0 1 1	3.0	0.0	0.0	1	
1 2 0 2 1	3.0	0.0	0.0	3	
1 2 0 2 1	3.0	2.0	1.0	3	
1 2 0 2 1	4.0	2.0	1.0	1	
1 2 0 2 1	4.0	2.0	1.0	1	
1 2 0 2 1	4.0	2.0	1.0	3	
1 2 0 2 1	4.0	2.0	1.0	1	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

- 1 Siltstone
- 2 Argillite
- 3 Cryptocrystalline silica (CCS)
- 4 Obsidian
- 5 Quartz/quartzite
- 6 Other

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
1 2 0 2 1	4.0	2.0	1.0	3	3
1 2 0 4 1	4.0	0.0	0.0	2	
1 2 0 2 1	5.0	0.0	0.0	3	
1 2 0 2 1	5.0	0.0	0.0	1	
1 2 0 2 1	7.0	3.0	1.0	3	
1 3 0 4 1	0.0	2.0	1.0	1	
1 3 0 1 1	2.0	2.0	0.5	4	
1 3 0 1 1	3.0	2.0	1.0	2	
1 3 0 4 1	3.0	0.0	0.0	3	
1 3 0 1 1	3.0	2.0	0.5	3	
1 3 0 2 1	3.0	0.0	0.0	3	
1 3 0 2 1	3.0	0.0	0.0	3	
1 3 0 1 1	3.0	2.0	0.5	1	
1 3 0 1 1	3.0	2.0	0.0	1	
1 3 0 2 2	3.0	2.2	0.7	3	
1 3 0 2 2	5.0	0.0	0.0	3	
1 3 0 1 1	6.0	3.0	1.0	3	
1 4 0 2 1	3.0	2.0	0.5	3	
2 1 1 1 1	3.0	2.0	0.5	3	
2 1 1 2 1	3.0	0.0	0.0	3	
2 1 1 2 1	3.0	0.0	0.0	3	
2 1 1 2 2	3.0	0.0	0.0	3	
2 1 1 2 1	4.0	0.0	0.0	4	
2 1 1 2 2	4.0	2.0	1.0	3	
2 1 1 2 1	5.0	3.0	1.0	3	
2 1 2 1 1	2.0	2.0	1.0	1	
2 1 2 2 1	2.0	0.0	0.0	3	
2 1 2 1 1	3.0	2.0	1.0	1	
2 1 2 1 1	3.0	2.0	0.5	2	
2 1 2 1 1	3.0	2.0	0.5	3	
2 1 2 1 1	3.0	2.0	0.5	3	
2 1 2 1 1	3.0	3.0	0.5	1	
2 1 2 1 1	3.0	2.0	0.5	3	
2 1 2 1 1	3.0	2.0	0.5	3	
2 1 2 1 1	3.0	2.0	0.5	3	
2 1 2 1 2	3.0	2.0	0.5	3	
2 1 2 1 2	3.0	2.0	0.5	3	
2 1 2 1 2	3.0	2.0	0.5	3	
2 1 2 2 2	3.0	0.0	0.0	3	
2 1 2 2 1	3.0	3.0	1.0	1	
2 1 2 2 1	3.0	2.0	1.0	3	
2 1 2 2 2	3.0	2.0	0.5	1	
2 1 2 2 1	3.0	0.0	0.0	3	
2 1 2 2 1	3.0	2.0	1.0	1	
2 1 2 2 2	3.0	0.0	0.0	3	
2 1 2 2 1	3.0	2.0	1.0	2	
2 1 2 2 1	3.0	2.0	0.5	1	
2 1 2 2 1	4.0	0.0	0.0	1	
2 1 2 2 2	4.0	2.0	0.5	3	
2 1 2 2 1	4.0	2.0	1.0	1	
2 1 2 2 1	4.0	2.0	1.0	1	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

1 Siltstone
2 Argillite
3 Cryptocrystalline silica (CCS)
4 Obsidian
5 Quartz/quartzite
6 Other

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
2 1 2 2 1	4.0	2.0	1.0	1	3
2 1 2 2 1	4.0	0.0	0.0	1	
2 1 2 2 1	4.0	0.0	0.0	1	
2 1 2 2 1	4.0	0.0	0.0	3	
2 1 2 2 3	4.0	2.0	1.0	3	
2 1 2 2 1	4.0	3.0	1.0	2	
2 1 2 2 1	4.0	3.0	1.0	3	
2 1 2 2 2	4.0	0.0	0.0	1	
2 1 2 1 1	4.0	3.0	1.0	3	
2 1 2 2 1	5.0	0.0	0.0	3	
2 1 2 2 2	5.0	3.0	1.0	1	
2 1 2 2 1	5.0	3.0	1.0	3	
2 1 2 2 2	5.0	0.0	0.0	3	
2 1 2 2 1	5.0	3.0	1.0	1	
2 1 2 2 2	6.0	3.0	0.5	2	
2 1 2 2 1	8.0	0.0	0.0	1	
2 2 2 1 1	3.0	0.0	0.0	3	
2 2 2 2 1	3.0	2.0	1.0	3	
2 2 2 2 1	3.0	2.0	1.0	1	
2 2 2 1 1	3.0	2.0	1.0	1	
2 2 2 1 1	3.0	0.0	0.0	3	
2 2 2 1 1	3.0	0.0	0.0	3	
2 2 2 1 2	3.0	0.0	0.0	3	
2 2 2 2 1	3.0	0.0	0.0	3	
2 2 2 2 1	3.0	2.0	0.5	3	
2 2 2 1 1	4.0	2.0	1.0	3	
2 2 2 1 1	4.0	2.0	1.0	1	
2 2 2 1 1	4.0	2.0	1.0	3	
2 2 2 1 1	4.0	3.0	1.0	3	
2 2 2 1 1	4.0	2.0	1.0	3	
2 2 2 1 1	4.0	2.0	1.0	1	
2 2 2 1 1	4.0	2.0	1.0	3	
2 2 2 2 1	4.0	3.0	0.5	1	
2 2 2 2 1	4.0	3.0	0.5	3	
2 2 2 2 2	4.0	0.0	0.0	3	
2 2 2 2 1	4.0	2.0	1.0	1	
2 2 2 2 1	4.0	2.0	1.0	2	
2 2 2 2 1	4.0	2.0	1.0	3	
2 2 2 2 1	5.0	3.0	1.0	1	
2 2 2 2 1	5.0	3.0	1.0	2	
2 2 2 1 2	5.0	3.0	0.5	3	
2 2 2 1 1	5.0	2.0	1.0	3	
2 2 2 2 1	5.0	3.0	0.5	1	
2 2 2 2 2	5.0	2.0	1.0	2	
2 2 2 2 2	5.0	0.0	0.0	1	
2 2 2 4 1	5.0	3.0	1.0	3	
2 2 2 1 1	6.0	0.0	0.0	2	
2 2 2 1 1	6.0	0.0	0.0	2	
2 3 0 1 1	4.0	0.0	0.0	2	
2 3 2 2 1	5.0	3.0	1.0	1	
2 3 2 2 1	5.0	2.0	1.0	2	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

- 1 Siltstone
- 2 Argillite
- 3 Cryptocrystalline silica (CCS)
- 4 Obsidian
- 5 Quartz/quartzite
- 6 Other

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
2 3 2 2 3	6.0	3.0	1.0	2	3
2 3 2 2 2	7.0	0.0	0.0	3	
3 1 1 1 1	4.0	3.0	1.0	3	
3 1 1 2 1	4.0	0.0	0.0	3	
3 1 1 2 1	4.0	3.0	1.0	3	
3 1 1 2 2	5.0	3.0	1.0	3	
3 1 1 2 1	6.0	3.0	1.0	1	
3 1 2 1 1	4.0	3.0	0.5	3	
3 1 2 1 2	4.0	0.0	0.0	3	
3 1 2 2 1	4.0	0.0	0.0	3	
3 1 2 2 2	4.0	3.0	1.0	3	
3 2 1 2 1	2.0	2.0	0.5	3	
3 2 1 2 1	3.0	2.0	0.5	3	
3 2 1 2 1	3.0	3.0	0.5	3	
3 3 2 2 1	4.0	0.0	0.0	1	
3 3 2 2 1	4.0	3.0	1.0	3	
4 1 1 2 2	0.0	2.6	0.7	2	
4 1 1 2 1	3.0	2.0	0.5	3	
4 1 1 1 1	3.0	0.0	0.0	1	
4 1 1 2 1	3.0	2.0	1.0	1	
4 1 1 2 1	3.0	2.0	1.0	1	
4 1 1 2 1	3.0	0.0	0.0	3	
4 1 1 2 1	3.0	2.0	1.0	3	
4 1 1 2 1	3.0	2.0	0.5	3	
4 1 1 2 1	3.0	2.0	1.0	1	
4 1 1 2 1	3.0	2.0	1.0	1	
4 1 1 1 1	4.0	0.0	0.0	3	
4 1 1 1 1	4.0	0.0	0.0	3	
4 1 1 1 1	4.0	0.0	0.0	3	
4 1 1 1 1	4.0	0.0	0.0	3	
4 1 1 1 1	4.0	0.0	0.0	2	
4 1 1 2 1	4.0	2.0	1.0	1	
4 1 1 2 1	4.0	0.0	0.0	3	
4 1 1 2 1	4.0	2.0	1.0	1	
4 1 1 1 1	4.1	2.1	0.5	3	
4 1 1 2 1	5.0	2.0	1.0	1	
4 1 1 2 1	5.0	2.0	1.0	1	
4 1 1 2 1	5.0	2.0	1.0	1	
4 1 1 2 2	5.7	2.6	0.6	3	
4 1 1 1 2	6.0	3.0	1.5	1	
4 1 1 2 2	6.0	0.0	0.0	3	
4 1 1 2 1	6.0	2.0	1.0	6	
4 1 1 1 1	6.0	3.0	1.0	1	
4 1 1 2 1	7.0	0.0	0.0	1	
4 1 1 1 1	7.1	2.6	0.8	3	
4 1 1 2 2	7.7	3.2	0.6	3	
4 1 1 2 2	8.2	2.5	0.8	3	
4 1 2 2 1	3.0	2.0	1.0	1	
4 1 2 2 1	3.0	2.0	1.0	3	
4 1 2 2 1	3.0	0.0	0.0	3	
4 1 2 2 1	3.0	2.0	1.0	3	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

1 Siltstone
2 Argillite
3 Cryptocrystalline silica (CCS)
4 Obsidian
5 Quartz/quartzite
6 Other

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
4 1 2 2 1	4.0	0.0	0.0	2	3
4 1 2 2 2	4.0	2.0	1.0	1	
4 1 3 2 1	4.0	0.0	0.0	2	
4 2 1 2 2	6.0	0.0	0.0	3	
4 2 1 2 2	7.3	3.1	0.7	3	
4 2 2 2 1	8.0	3.0	1.5	1	
4 2 3 2 2	5.0	0.0	0.0	3	
4 2 3 2 1	6.0	0.0	0.0	3	
4 3 1 1 1	4.0	2.0	1.0	1	
4 3 1 1 1	5.0	0.0	0.0	3	
4 3 2 2 1	4.0	2.0	1.0	3	
4 5 3 2 3	6.0	2.0	1.0	3	
5 1 1 1 1	3.0	2.0	1.0	1	
5 1 1 2 1	4.0	2.0	1.0	3	
5 1 1 1 1	4.0	2.0	1.0	1	
5 1 1 1 1	4.0	2.0	1.0	3	
5 1 1 2 1	4.0	2.0	1.0	1	
5 1 1 1 1	5.0	2.0	1.0	3	
5 1 1 1 1	5.0	2.0	1.0	1	
5 1 1 2 1	6.0	3.0	1.0	1	
5 1 2 2 1	6.0	2.0	1.0	3	
5 1 3 2 2	4.9	2.0	0.7	1	
5 1 3 2 3	5.0	2.3	0.7	3	
5 1 3 2 2	5.0	0.0	0.0	1	
5 1 3 1 2	5.5	2.2	0.7	2	
5 1 3 2 2	5.7	2.1	0.7	1	
5 1 3 2 3	5.8	2.2	0.6	1	
5 1 3 2 2	6.8	2.5	0.9	3	
5 2 3 2 1	4.0	0.0	0.0	3	
5 2 3 2 1	4.0	0.0	0.0	3	
5 2 3 4 1	6.0	3.0	1.0	1	
5 2 3 2 2	6.5	2.3	0.8	2	
5 3 1 2 3	4.4	2.1	0.6	3	
5 3 2 2 2	5.0	2.0	1.0	3	
6 0 3 1 1	8.0	2.3	0.8	2	
6 1 [illegible] 1 1	3.0	0.0	0.0	1	
6 1 [illegible] 3 2	4.0	1.4	0.6	1	
6 1 [illegible] 1 1	4.0	0.0	0.0	3	
6 1 [illegible] 1 1	4.0	0.0	0.0	1	
6 1 [illegible] 1 1	4.0	0.0	0.0	2	
6 1 [illegible] 1 1	4.0	0.0	0.0	1	
6 1 [illegible] 2 2	4.0	0.0	0.0	3	
6 1 [illegible] 1 1	4.0	0.0	0.0	3	
6 1 [illegible] 1 1	4.0	0.0	0.0	3	
6 1 [illegible] 2 2	4.9	2.0	0.6	2	
6 1 [illegible] 1 2	5.0	1.4	0.9	3	
6 1 [illegible] 1 1	5.0	0.0	0.0	1	
6 1 [illegible] 1 1	5.0	0.0	0.0	1	
6 1 [illegible] 2 2	5.0	0.0	0.0	3	
6 1 [illegible] 2 2	5.0	0.0	0.0	3	
6 1 [illegible] 2 2	5.2	1.7	0.6	3	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

- 1 Siltstone
- 2 Argillite
- 3 Cryptocrystalline silica (CCS)
- 4 Obsidian
- 5 Quartz/quartzite
- 6 Other

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
6 1 1 2 2	5.4	1.9	0.5	3	3
6 1 3 2 2	5.5	2.0	0.7	2	
6 1 1 2 2	5.5	2.1	0.7	2	
6 1 3 2 2	5.9	2.5	0.7	2	
6 1 3 1 1	6.0	0.0	0.0	2	
6 1 1 2 2	6.2	2.3	0.6	2	
6 1 1 2 2	6.6	2.3	0.8	2	
6 1 1 2 2	6.8	2.2	0.7	2	
6 1 1 1 1	4.0	2.0	1.0	2	
6 1 1 4 1	5.0	2.0	1.0	6	
6 1 1 2 1	5.2	1.7	0.6	1	
6 1 1 1 1	6.7	1.7	0.6	1	
6 1 3 1 1	3.0	2.0	1.0	1	
6 1 3 1 1	3.0	2.0	1.0	2	
6 1 3 2 1	3.0	0.0	0.0	3	
6 1 3 4 1	4.0	0.0	0.0	3	
6 1 3 1 1	4.0	2.0	1.0	1	
6 1 3 1 1	4.0	0.0	0.0	3	
6 1 3 4 1	5.0	0.0	0.0	1	
6 1 3 4 1	5.0	0.0	0.0	2	
6 1 3 4 1	5.0	0.0	0.0	1	
6 1 3 2 2	5.0	0.0	0.0	3	
6 1 3 2 2	5.0	0.0	0.0	3	
6 1 3 2 1	5.3	2.0	0.9	1	
6 1 3 2 1	5.3	1.6	0.5	3	
6 1 3 1 1	5.4	2.3	0.6	1	
6 1 3 2 1	5.8	2.1	0.7	1	
6 1 3 2 2	6.0	0.0	0.0	2	
6 1 3 1 2	7.0	0.0	0.0	1	
6 1 3 2 1	7.0	0.0	0.0	2	
6 1 3 3 2	9.0	0.0	0.0	1	
6 2 0 1 1	4.0	0.0	0.0	3	
6 2 0 1 1	5.0	0.0	0.0	1	
6 2 0 1 1	5.0	0.0	0.0	1	
6 2 0 1 1	5.0	0.0	3.0	1	
6 2 0 2 2	5.0	0.0	0.0	2	
6 2 0 1 2	5.0	1.0	0.7	2	
6 2 0 1 1	6.0	0.0	0.0	2	
6 2 0 3 2	6.2	1.6	0.6	1	
6 2 0 1 1	7.1	2.1	0.8	1	
6 2 0 1 1	8.8	2.3	0.6	2	
6 2 2 2 1	5.0	2.0	0.5	4	
6 2 2 2 2	7.0	3.0	1.0	3	
6 2 3 1 1	4.0	2.0	1.0	1	
6 2 3 1 1	4.0	0.0	0.0	3	
6 2 3 2 2	4.0	2.0	1.0	3	
6 2 3 1 1	4.0	0.0	0.0	3	
6 2 3 4 1	5.0	2.0	0.5	2	
6 2 3 2 1	5.0	2.0	1.0	1	
6 2 3 2 1	5.0	2.0	1.0	1	
6 2 3 1 1	5.0	2.0	1.0	1	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

- 1 Siltstone
- 2 Argillite
- 3 Cryptocrystalline silica (CCS)
- 4 Obsidian
- 5 Quartz/quartzite
- 6 Other

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
6 2 3 2 2	5.5	1.6	0.6	3	3
6 2 3 2 2	6.0	3.0	1.0	3	
6 2 3 4 1	6.0	3.0	1.0	1	
6 2 3 2 1	8.0	3.0	1.0	3	
6 2 3 1 1	9.0	3.0	1.0	2	
6 3 0 2 3	4.4	1.5	0.6	3	
6 3 0 2 2	4.4	2.3	0.7	3	
6 3 0 2 3	4.7	2.2	0.6	2	
6 3 0 2 2	5.0	2.0	1.0	1	
6 3 0 1 3	5.0	2.0	0.5	1	
6 3 0 1 3	6.1	2.3	0.6	3	
6 3 1 2 1	3.0	2.0	1.0	1	
6 3 1 1 1	4.0	2.0	1.0	2	
6 3 1 1 1	4.0	2.0	1.0	3	
6 3 1 2 2	8.4	2.4	0.7	3	
6 3 2 2 2	4.0	1.0	1.0	2	
6 3 3 2 1	6.0	0.0	0.0	2	
6 3 3 2 2	6.0	0.0	0.0	1	
6 3 3 1 1	7.5	1.9	0.6	1	
6 5 0 1 1	3.0	0.0	0.0	3	
6 5 0 1 1	3.0	0.0	0.0	3	
6 5 0 1 1	5.0	0.0	0.0	3	
6 5 0 1 1	5.0	0.0	0.0	3	
6 5 0 1 1	5.0	0.0	0.0	3	
6 5 0 1 2	5.3	1.3	0.8	3	
6 5 0 1 1	6.0	0.0	0.0	5	
6 5 0 1 1	6.0	0.0	0.0	1	
6 5 3 1 1	4.0	2.0	0.5	3	
6 5 3 2 4	4.0	2.0	1.0	3	
6 5 3 2 4	4.0	2.0	1.0	1	
6 5 3 4 1	5.0	3.0	0.5	1	
6 5 3 2 2	7.1	2.0	0.8	3	
6 5 3 2 1	8.0	3.0	1.0	2	
6 5 3 2 3	8.5	2.5	0.8	3	
7 1 1 2 1	4.0	2.0	1.0	1	
7 1 3 2 1	6.0	3.0	2.0	1	
7 1 3 4 1	6.0	4.0	1.0	5	
7 3 0 2 2	4.0	0.0	0.0	1	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

- 1 Siltstone
- 2 Argillite
- 3 Cryptocrystalline silica (CCS)
- 4 Obsidian
- 5 Quartz/quartzite
- 6 Other

APPENDIX A
Collection 4

With a few exceptions, most of the artifacts in this collection are from the beaches below Laclede (10BR16) on the north side of the river and the Hoodoo Creek - Seneacquoteen area (10BR462, 10BR10/20, 10BR286, Location K) on the south. The majority of complete projectile points are framed. The glass beads and other historic artifacts are of particular note because of their association with the Seneacquoteen-Laclede ferry and early Hudson's Bay Co. influences. In addition, the collection includes at least 270 projectile points and point fragments. Most are small to medium sized CCS side notched and corner notched points.

Non-Projectile Point Artifacts

Category	Site Association	Comment
Flaked Stone		
Preform	10BR16, 10BR495 and Location K	Artifacts most distinguished among
Drill	"	location
Graver		
Ground/Battered Stone		
Maul/Pestle	10BR497 Location T	
Historic		
Gun flints	Location K	
Beads	10BR16, Grass Island 10BR497, 10BR10/20	Red, white, blue clear faceted; blue faceted; metal; dark blue tubal, spotted glass, black & green seed beads, pink. Largest is 1 cm in diameter, most blue & white and 0.5 cm in diameter.
Button	"	1" diameter, metal shank with fabric pattern on top. Ceramic-4 hole, "Prosser", 1"-1-5/8" diameter, white, dark green and black.
Lead slug	"	
Musket ball	10BR16	
Coin	10BR16	1877 dime

Photographs:

Black & White,	Roll 5,	frames 15-20
	Roll 6,	frames 1-8
Color	Roll 5,	frames 15-22
	Roll 6,	frames 1-5

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
1 1 0 1 1	1.0	1.0	0.5	3	4
1 1 0 1 1	2.0	2.0	0.5	3	
1 1 0 1 1	2.0	1.0	0.5	3	
1 1 0 1 1	2.0	1.0	0.5	3	
1 1 0 1 1	2.0	1.0	0.5	3	
1 1 0 1 1	2.0	1.0	0.5	3	
1 1 0 1 1	2.0	1.0	0.5	3	
1 1 0 1 1	2.0	1.0	0.5	3	
1 1 0 1 1	3.0	2.0	1.0	3	
1 1 0 1 1	3.0	2.0	0.5	3	
1 1 0 1 1	3.0	2.0	0.5	3	
1 1 0 1 1	3.0	2.0	0.5	3	
1 1 0 1 1	4.0	2.0	1.0	3	
1 1 0 4 1	4.0	2.0	1.0	3	
1 2 0 1 1	2.0	2.0	0.5	3	
1 2 0 1 1	3.0	2.0	0.5	3	
1 2 0 2 1	3.0	2.0	0.5	3	
1 3 0 1 1	2.0	2.0	0.5	3	
1 3 0 1 1	2.0	2.0	0.5	3	
1 4 0 1 1	2.0	2.0	0.5	3	
1 4 0 1 1	3.0	2.0	0.5	3	
2 1 2 2 1	2.0	2.0	0.5	3	
2 1 2 1 1	3.0	2.0	0.5	3	
2 1 2 1 1	3.0	2.0	1.0	3	
2 1 2 2 1	3.0	2.0	1.0	3	
2 1 2 4 1	3.0	1.0	0.5	3	
2 2 2 2 1	2.0	2.0	0.5	3	
2 2 2 2 1	3.0	2.0	1.0	1	
2 2 2 1 1	3.0	3.0	1.0	3	
2 2 2 2 1	3.0	2.0	1.0	3	
3 1 2 1 1	3.0	2.0	0.5	3	
3 1 2 2 1	3.0	3.0	1.0	3	
3 1 2 2 1	4.0	2.0	1.0	3	
3 1 2 2 1	4.0	4.0	1.0	2	
3 1 2 2 1	4.0	3.0	1.0	3	
3 1 2 2 1	4.0	3.0	1.0	3	
3 1 2 2 1	4.0	2.0	1.0	3	
3 1 2 2 1	4.0	3.0	1.0	3	
3 1 2 2 1	5.0	3.0	1.0	3	
3 2 1 2 2	3.0	3.0	1.0	3	
3 2 2 2 1	3.0	3.0	1.0	3	
3 2 2 2 1	4.0	3.0	1.0	3	
3 2 2 2 1	4.0	4.0	0.5	3	
3 2 2 2 1	5.0	4.0	1.0	2	
3 2 2 2 1	5.0	3.0	1.0	3	
3 2 2 2 1	5.0	4.0	1.0	3	
4 1 1 1 1	3.0	2.0	1.0	1	
4 1 1 1 1	4.0	2.0	1.0	3	
4 1 1 2 2	5.0	2.0	1.0	3	
4 1 1 2 2	5.0	1.0	1.0	3	
4 1 3 2 1	2.0	2.0	1.0	3	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

- 1 Siltstone
- 2 Argillite
- 3 Cryptocrystalline silica (CCS)
- 4 Obsidian
- 5 Quartz/quartzite
- 6 Other

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
4 1 3 2 1	4.0	3.0	1.0	3	4
4 2 1 1 1	2.0	2.0	0.5	1	
4 5 1 1 1	4.0	2.0	1.0	3	
5 1 3 4 1	7.0	3.0	0.5	1	
6 5 3 2 1	5.0	2.0	1.0	3	
6 5 3 1 2	9.9	1.4	0.8	3	
7 1 0 2 1	4.0	4.0	1.0	3	
7 1 1 2 2	7.0	4.0	1.0	3	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

- **1** Siltstone
- **2** Argillite
- **3** Cryptocrystalline silica (CCS)
- **4** Obsidian
- **5** Quartz/quartzite
- **6** Other

APPENDIX A
Collection 5

Most of the material in this collection has no site provenience other than the river from Laclede downstream. The north side of the river was frequented more than the south. The collection includes an estimated 200 points, the finest of which are framed, a zoomorphic ground stone object (Figure 28), numerous mauls and pestles, nephrite adze, several epoxy ashtrays encasing hundreds of modified flakes, tool and projectile point fragments and numerous historic artifacts from beads to metal ax heads. The collector has lived near the river for fifty years and is quite knowledgeable about local history especially of the mills and log yards.

Non-Projectile Point Artifacts

Category	Site Association	Comment
Historic		
Button	10BR94 to	Metal
Religious medal	Thama Ferry	1¼"x7/8" wide
Beads	"	glass, blue, green, white, clear, seed. One stone bead, 3/8" diameter.
Marbles	"	Natural, Bennington, white
Pipe	"	Clay
Token	"	1935 Washington State tax token
Slugs	"	
Musket balls		
Rifle shells	"	W.R.A. Co. 40-82 W.O.F. centerfire Winchester No. 12-all metal 2-5/8" high Rimfire

Photographs:

Black & White	Roll 6, frames 33-36A
	Roll 7, frames 1-14
Color	Roll 7, frames 1-17
	Roll 8, frames 1, 2

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
1 1 0 0 1	4.0	4.0	0.0	4	5
1 2 0 0 1	6.0	5.0	0.0	2	
3 2 2 0 1	5.0	3.0	1.0	1	
4 1 1 0 1	9.9	4.0	0.0	6	
4 2 2 0 1	9.0	4.0	0.0	6	
4 3 1 0 1	5.0	3.0	0.0	2	
4 3 2 0 1	6.0	3.0	1.0	6	
6 2 3 2 2	9.9	2.5	0.0	1	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

- 1 Siltstone
- 2 Argillite
- 3 Cryptocrystalline silica (CCS)
- 4 Obsidian
- 5 Quartz/quartzite
- 6 Other

APPENDIX A
Collection 6

The collection comes primarily from the Dover area. It contains approximately 500 points and tools including bifaces, drills, gravers, scrapers, modified flakes and large percussion flakes and flakes and artifacts of quartz crystal. It is also notable for nephrite adzes, the collector heard there is a source of material similar to the Frazier River nephrite in Montana. The collector had samples of Frazier River material which was similar to the adzes; the rectangular stone objects, cylindrical pestles, the largest biface observed in a collection (length, 23 cm) and the only microblade observed. The microblade was of transluscent orange, red CCS, 2.40+cm x 0.70 cm x 0.16 cm, was shaped distally, had parallel dorsal arrises, and an approximately 90° platform.

Non-Projectile Point Artifacts

Category	Number	Comments
Flaked Stone		
Biface	8	
Pebble tools	7	
Ground/Battered Stone		
Nephrite Adze blades	3	
Historic		Dover area and Preston Point
Jewelry	2+	
Marbles	2	
Mini balls/lead bullets	5	
Buttons	2	
Military insignia	1	
Beads	2	
Trade tokens	1	

Photographs:
Black & White Roll 8, frames 1-11

Because lighting conditions were poor, we were unable to take color photographs. The black and white photos, because of these conditions, are poor.

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
1 1 0 1 1	3.0	2.0	1.0	3	6
1 1 0 2 1	5.0	4.0	1.0	3	
1 2 0 2 2	7.0	3.0	1.0	3	
6 1 1 0 3	0.0	3.0	1.0	6	
6 1 3 1 1	4.0	2.0	1.0	5	
6 1 3 4 1	7.0	4.0	1.0	3	
6 1 3 2 1	9.0	3.0	1.5	3	
7 1 0 0 2	7.0	3.0	1.0	3	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

- 1 Siltstone
- 2 Argillite
- 3 Cryptocrystalline silica (CCS)
- 4 Obsidian
- 5 Quartz/quartzite
- 6 Other

APPENDIX A
Collection 7

Locations are known for only a few of the artifacts in this collection, many of which are framed. Its four crates of ground and battered stone are of interest as are the bolas stones, atlatl(?) weight, pentagonal knife, and steatite tubular pipe fragments.

Non-Projectile Point Artifacts

Category	Site Association	Comment
Flaked stone		
Biface	10BR436	10cm x 5 cm x 1.5 cm, percussion flaked
Knife	10BR438 10BR430	Pentagonal
Preform	10BR517	Quartzite
Ground/Battered Stone		
Pestles/mauls	10BR435	south end of Northern Pacific Railroad bridge Fishermans Island
Cobbles/tools		Numerous crates full
Atlatl weight (?)	10BR435	
Bola stone	10BR522	
Stone pendent (?)	10BR99	
Buttons		
Religious medals	10BR518/519	
Beads		1 faceted

Photographs:

Black & White	Roll 8, frames 22-36A
	Roll 9, frames 1-5
Color	Roll 8, frames 15-19
	Roll 9, frames 1-12

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
1 1 0 1 1	2.0	1.0	0.5	1	7
2 1 1 1 1	0.0	3.0	1.0	3	
2 1 2 2 1	3.0	2.5	1.0	3	
2 1 2 2 1	5.0	3.0	1.0	1	
4 1 1 2 2	7.0	4.0	1.0	2	
5 2 1 2 1	4.0	1.5	1.0	3	
5 2 1 2 1	4.0	1.5	1.0	3	
6 1 1 2 3	0.9	2.5	0.6	1	
6 1 3 2 3	5.0	2.5	1.0	3	
6 1 3 2 2	5.5	2.0	0.5	1	
6 1 3 2 2	6.0	2.0	0.5	2	
6 1 3 2 2	7.0	2.5	1.0	1	
6 1 3 1 1	8.0	3.0	1.0	6	
6 1 3 2 2	9.9	5.0	1.5	2	
7 1 0 1 1	3.5	2.5	1.0	5	
7 1 0 2 1	4.0	3.5	1.0	3	
7 2 3 2 2	0.5	3.0	1.0	3	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

1 Siltstone
2 Argillite
3 Cryptocrystalline silica (CCS)
4 Obsidian
5 Quartz/quartzite
6 Other

APPENDIX A
Collection 8

Only general and not specific locational information was obtained from this collection. The collector had been over most of the Pend Oreille River and northern portion of the lake and made particular mention of Denton Slough. This collection contained the same type points as previous collections so no dimensional information was recorded and thus no printout will follow this description. Of note is the obsidian core/nodule that was collected along the river.

Non-Projectile Point Artifacts

Category	Comments
Flaked Tools	
Bifaces	
Unifaces	
Scrapers	
Flaked tools	
Core fragments	Obsidian core, pieces of petrified wood
Notched cobbles	
Ground/Battered Stone	
Mauls	One is grooved
Historic	
Bottle	Brown with embossed lettering: LIFE PRESERVER WALTER DISTILLING CO. on opposing panels
Bottle closures	Lea & Perrins type
Pipe fragments	Clay with heel
Lead bullets and balls	
Shell casings	

Photographs:
Black & White Roll 9, frames 8-27
Color Roll 10, frames 4-18

APPENDIX A
Collection 9

The majority of this collection comes from the Laclede area where the collector lives. Sites 10BR16, 10BR495 and 10BR496. The portion of Collection 9 that we inventoried was on display at the Bonner County Historical Society Museum and contained no large (i.e., cobble) tools.

Non-Projectile Point Artifacts

Flaked Tools
- Scrapers
- Bifaces
- Blades
- Drills

Ground/Battered Stone
- Adze
- Pipe fragments

Historic
- Beads
- Nails
- Lead bullets and balls
- Marbles
- Keys
- Lock

Photographs:

Black & White	Roll 8, frames 19-21
Color	Roll 8, frames 8-14

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
1 1 0 2 1	1.5	1.5	0.5	3	9
1 1 0 1 1	1.5	1.0	3.5	3	
1 1 0 1 1	1.5	1.5	0.5	3	
1 1 0 2 1	1.5	1.5	0.5	1	
1 1 0 1 1	2.0	1.5	0.5	2	
1 1 0 2 1	2.0	1.5	0.5	3	
1 1 0 2 1	2.0	1.5	0.5	3	
1 1 0 2 1	2.0	1.5	0.5	3	
1 1 0 2 1	2.0	1.5	0.5	3	
1 1 0 2 1	2.0	1.5	0.5	1	
1 1 0 2 1	2.0	1.5	0.5	3	
1 1 0 2 1	2.5	1.5	0.5	1	
1 1 0 2 1	2.5	1.5	0.5	3	
1 1 0 2 1	2.5	1.5	0.5	3	
1 1 0 1 1	2.5	1.5	0.5	1	
1 1 0 2 1	2.5	2.0	0.5	1	
1 1 0 2 1	2.5	1.5	0.5	3	
1 1 0 2 1	3.0	2.0	1.0	1	
1 1 0 2 1	3.0	2.0	0.5	3	
1 1 0 2 1	3.0	1.5	0.5	3	
1 1 0 2 1	4.0	2.0	1.0	3	
1 1 0 2 2	5.0	2.0	1.0	3	
1 1 2 1 1	2.5	1.5	1.0	1	
1 1 2 1 1	3.0	2.5	1.0	3	
1 1 2 1 1	4.0	2.5	1.0	1	
1 3 0 1 1	2.0	1.5	0.5	3	
1 3 0 2 1	2.0	1.5	0.5	3	
1 3 0 2 1	3.0	1.5	0.5	2	
1 3 0 2 1	5.0	2.0	1.0	3	
2 1 1 2 1	2.5	1.5	1.0	1	
2 1 1 2 1	2.5	1.0	1.0	3	
2 1 1 2 1	2.5	1.5	1.0	1	
2 1 1 2 1	2.5	1.5	1.0	3	
2 1 1 2 1	2.5	1.5	1.0	3	
2 1 1 2 1	3.0	2.0	1.0	3	
2 1 1 2 1	3.0	1.0	1.0	1	
2 1 2 1 1	1.5	1.5	0.5	3	
2 1 2 1 1	2.0	1.5	0.5	3	
2 1 2 1 1	2.5	1.5	1.0	1	
2 1 2 1 1	2.5	2.0	1.0	2	
2 1 2 1 1	2.5	2.0	1.0	3	
2 1 2 2 1	2.5	1.5	1.0	3	
2 1 2 2 1	2.5	1.5	1.0	3	
2 1 2 2 1	2.5	1.5	1.0	3	
2 1 2 2 1	2.5	1.5	1.0	2	
2 1 2 2 1	2.5	1.5	1.0	3	
2 1 2 1 1	3.0	1.5	1.0	1	
2 1 2 1 1	3.0	1.5	1.0	3	
2 1 2 1 1	3.0	2.0	1.0	3	
2 1 2 1 1	3.0	3.0	1.0	2	
2 1 2 1 1	3.0	2.5	1.0	2	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

- 1 Siltstone
- 2 Argillite
- 3 Cryptocrystalline silica (CCS)
- 4 Obsidian
- 5 Quartz/quartzite
- 6 Other

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
2 1 2 1 1	3.0	2.0	1.0	3	9
2 1 2 1 1	3.0	2.0	1.0	3	
2 1 2 1 1	3.0	2.5	1.0	2	
2 1 2 2 1	3.0	2.0	1.0	1	
2 1 2 2 1	3.0	1.5	1.0	1	
2 1 2 1 1	3.0	2.5	1.0	1	
2 1 2 1 1	3.0	1.5	1.0	3	
2 1 2 2 1	3.0	2.0	1.0	1	
2 1 2 2 1	3.0	2.0	1.0	3	
2 1 2 2 1	3.0	1.5	1.0	3	
2 1 2 2 1	3.5	2.0	1.0	2	
2 1 2 2 1	3.5	2.5	1.0	1	
2 1 2 1 1	3.5	2.0	1.0	3	
2 1 2 2 1	4.0	2.0	1.0	3	
2 1 2 1 1	4.0	2.5	1.0	2	
2 2 2 1 1	2.0	1.5	1.0	1	
2 2 2 2 1	2.0	1.5	1.0	1	
2 2 2 1 1	2.5	1.5	1.0	1	
2 2 2 2 1	2.5	1.5	1.0	1	
2 2 2 2 1	2.5	1.5	1.0	1	
2 2 2 1 1	2.5	1.5	1.0	1	
2 2 2 2 1	2.5	1.5	1.0	1	
2 2 2 2 1	2.5	1.5	1.0	3	
2 2 2 2 1	3.0	1.5	1.0	3	
2 2 2 2 1	3.0	2.0	1.0	3	
2 2 2 2 1	3.0	1.5	1.0	3	
2 2 2 2 1	4.0	2.0	1.0	3	
2 2 2 2 1	4.0	2.0	1.0	3	
3 1 1 1 1	2.0	2.5	1.0	3	
3 1 1 2 1	2.0	1.5	1.0	3	
3 1 1 1 1	3.0	2.0	1.0	1	
3 1 1 2 1	3.0	1.5	1.0	3	
3 1 1 1 1	3.5	3.0	1.0	3	
3 1 1 2 1	3.5	2.0	1.0	3	
3 1 1 2 1	3.5	2.5	1.0	3	
4 1 1 1 1	2.0	1.5	0.5	3	
4 1 1 1 1	2.5	2.0	1.0	1	
4 1 1 1 1	2.5	1.5	1.0	1	
4 1 1 2 1	2.5	2.0	1.0	3	
4 1 1 1 1	2.5	2.0	1.0	1	
4 1 1 1 1	3.0	2.0	1.0	3	
4 1 1 1 1	3.0	2.0	1.0	3	
4 1 1 1 1	3.0	2.0	1.0	3	
4 1 1 1 1	3.0	2.0	1.0	3	
4 1 1 1 1	3.0	2.0	1.0	3	
4 1 1 2 1	3.0	2.0	1.0	1	
4 1 1 1 1	3.0	2.0	1.0	3	
4 1 1 2 1	3.0	2.0	1.0	1	
4 1 1 2 1	3.0	2.0	1.0	1	
4 1 1 2 1	3.0	1.5	1.0	2	
4 1 1 2 1	3.0	1.5	1.0	1	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
- 4 Bi-planar

E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

- 1 Siltstone
- 2 Argillite
- 3 Cryptocrystalline silica (CCS)
- 4 Obsidian
- 5 Quartz/quartzite
- 6 Other

PROJECTILE POINT TYPE LIST

Type A B C D E	Len	Wth	Th	Mat	Coll
4 1 1 2 1	4.0	3.5	1.0	1	9
4 1 1 2 1	4.0	3.5	1.0	1	
4 1 1 2 1	4.0	2.0	1.0	3	
4 1 1 2 1	4.0	2.0	1.0	1	
4 1 1 2 2	6.5	3.0	1.5	4	
4 1 1 2 1	7.0	3.0	1.0	3	
4 1 3 2 1	3.0	1.5	1.0	3	
4 1 3 2 1	4.5	2.0	1.0	1	
4 1 3 2 1	4.5	2.0	1.0	3	
4 1 3 2 2	5.0	2.0	1.0	3	
4 1 3 2 2	5.5	2.0	1.0	3	
4 2 1 1 1	5.5	2.5	1.0	6	
4 3 2 1 1	3.0	2.0	1.0	1	
4 3 2 2 1	3.0	2.0	1.0	1	
4 3 2 2 1	4.0	2.0	1.0	3	
4 3 2 1 1	4.5	1.5	1.0	3	
5 1 1 2 1	3.0	1.5	1.0	3	
5 1 1 2 1	3.5	1.5	1.0	1	
5 1 1 2 1	3.5	1.5	1.0	1	
5 1 1 2 1	4.0	1.5	1.0	2	
5 1 1 2 1	4.5	1.5	1.0	1	
5 1 1 2 1	4.5	1.5	1.0	6	
5 1 1 2 1	5.0	2.5	1.0	1	
6 1 1 1 1	2.5	1.5	1.0	1	
6 1 1 1 1	2.5	1.5	1.0	1	
6 1 1 2 1	2.5	1.5	1.0	3	
6 1 1 2 1	3.0	2.0	1.0	1	
6 1 1 1 1	3.5	2.0	0.5	2	
6 1 1 2 1	3.5	2.0	0.5	3	
6 1 1 2 2	5.0	2.0	1.0	1	
6 1 3 2 1	3.5	2.0	1.0	1	
6 1 3 2 1	3.5	2.0	1.0	1	
6 1 3 3 2	6.0	1.5	1.0	3	
6 2 1 2 1	4.0	1.5	1.0	1	
6 2 1 2 1	5.5	2.0	1.0	1	
6 2 3 2 1	3.5	2.0	1.0	3	
6 2 3 2 1	3.5	2.0	1.0	3	
6 2 3 2 3	3.5	2.0	1.0	3	
6 2 3 2 1	4.0	2.0	1.0	3	
6 2 3 2 1	4.0	2.0	1.0	3	
6 2 3 2 1	4.0	2.0	1.0	3	
6 2 3 2 2	5.5	2.0	1.0	3	

TYPE DIMENSIONS

A - OUTLINE
- 1 Side notched
- 2 Corner notched
- 3 Basal notched
- 4 Stemmed
- 5 Shouldered lanceolate
- 6 Lanceolate

B - BASAL EDGE
- 1 Straight
- 2 Convex
- 3 Concave
- 4 Notched
- 5 Point

C - STEM EDGE
- 1 Straight
- 2 Expanding
- 3 Contracting
- 0 Not applicable

D - CROSS SECTION
- 1 Plano-convex/triangular
- 2 Biconvex
- 3 Diamond
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E - BLADE FLAKING PATTERN
- 1 Variable
- 2 Collateral
- 3 Transverse

MATERIAL TYPE

- 1 Siltstone
- 2 Argillite
- 3 Cryptocrystalline silica (CCS)
- 4 Obsidian
- 5 Quartz/quartzite
- 6 Other

APPENDIX A
Collection 10

This family of collectors, particularly the father and two sons, has been gathering artifacts since the 1950s. They estimate their combined collections at 5,000 objects. The majority of these come from the Oden Bay-Sunnyside area but collecting was also carried out in Denton Slough. Although the collection was primarily prehistoric, there were numerous historic items. Use of a metal detector seems to account for a good deal of these.

Because much of this collection duplicated what had already been inventoried, we concentrated on the more unique artifacts and photographed a representative sample of the range of projectile points present.

Non-Projectile Point Artifacts

Category	Comments
Flaked Tools	
Bifaces	Some serrated
Unifaces	
Drills	
Gravers	
Spokeshaves	
Ground/Battered Stone	
Pestles	
Cobble tools	Numerous boxes full
Adzes	Nephrite, Figure 31
Beads	
Pipes	
Zoomorphic figure	Catlinite, Figure 28
Bone/Teeth	
Awls	
Teeth	Modified carnivore and elk
Historic	
Beads	Numerous and varied
Buttons	Plain, decorated, metal
Coins	US, Canadian and ten Chinese, see text pg 71
Pipes, fragments	Clay, McDougall, TD/Homer, TD78 white
Bottles	50+ "opium", some with Chinese characters, found along railroad

Bottle closures	various styles, Lea & Perrins type, green, clear, purple
Gun flints	
Trade token	A. C. White 5¢ Republic of China
Religious medal	St. Gonzaga
Ring	Reputed Hudson's Bay trade item, metal, found at mouth of Clark Fork River
Brass band	Incised marks
Marbles	Clay, glazed blue (Bennington), white
Ax heads	At one time had 5, said to be Hudson's Bay
Lead bullets and balls	

Photographs:

Black & White	Roll 7, frames 1-36
Color	Roll 8, frames 4-7

APPENDIX B

Data Tables

APPENDIX B
LENGTHS OF PROJECTILE POINTS

Class	Length (cm) 1	2	3	4	5	6	7	8	9	10	Total
SN	1	105	92	29	9	3	2	-	-	-	241
	0.4	43.6	38.2	12.0	3.7	1.2	0.8				
CN	8	23	142	73	23	5	1	2	-	-	277
	2.9	8.3	51.3	26.4	8.3	1.8	0.4	0.7			
BN		5	13	26	10	-	-	-	-	-	54
		9.3	24.1	48.1	8.5						
Stem	-	14	53	33	19	10	7	3	1		
		10.0	37.9	23.6	13.6	7.1	5.0	2.1	0.7		
Shoul		1	4	12	11	6	3	-	-	-	37
		2.7	10.8	32.4	29.7	16.2	8.1				
Lanc	-	1	19	48	43	23	13	7	6	2	162
		0.62	11.73	29.6	26.5	14.2	8.0	4.3	3.7	1.2	
Total	9	149	323	221	45	47	26	12	7	2	911
	1.0	16.4	35.5	24.3	12.6	5.2	2.9	1.3	0.8	0.2	

SN = Side notch
CN = Corner notch
BN = Basal notch
Stem = Stemmed
Shoul = Shouldered lanceolate
Lanc = Lanceolate

APPENDIX B

MATERIAL OF PROJECTILE POINTS

Class	Material 1	2	3	4	5	6	Total
SN	60	18	157	10	-	-	245
	24.5	7.4	64.1	4.1			
CN	86	37	145	8	1	-	277
	31.0	13.4	52.3	2.9	0.4		
BN	4	7	44	-	-	-	55
	7.3	12.7	80.0				
Stem	48	12	75	6	1	4	146
	32.9	8.2	51.4	4.1	0.7	2.7	
Shoul	18	4	14	-	-	1	37
	48.6	10.8	37.8			2.7	
Lanc	55	36	72	1	3	3	170
	32.4	21.2	42.4	.6	1.8	1.8	
Total	271	114	507	25	5	8	930
	29.1	12.3	54.5	2.7	0.5	0.9	

SN = Side notch
CN = Corner notch
BN = Basal Notch
Stem = Stemmed
Shoul - Shouldered lanceolate
Lanc = Lanceolate

Material
1 = Siltstone
2 = Argillite
3 = CCS
4 = Obsidian
5 = Quartz/quartzite
6 = Other

APPENDIX B
MATERIAL BY LENGTH OF PROJECTILE POINT

Length(cm)	Material 1	2	3	4	5	6	Total	%
1	-	-	9	-	-	-	9	1.0
2	31	7	101	10	1	-	150	16.3
3	107	32	175	8	1	-	323	35.1
4	57	31	131	4	1	-	224	24.3
5	45	19	50	2	1	1	118	12.8
6	14	17	13	-	1	2	47	5.1
7	6	7	12	1	-	-	26	2.8
8	3	1	7	-	-	2	13	1.4
9	2	3	2	-	-	1	8	0.9
10	1	1	1	-	-	-	3	0.3
Total	266	118	501	25	5	6	921	100.0
	28.9	12.8	54.5	2.71	0.5	0.7		

Material

1 = Siltstone

2 = Argillite

3 = CCS

4 = Obsidian

5 = Quartz/quartzite

6 = Other

APPENDIX B

PROJECTILE POINT CLASS, MATERIAL & LENGTH

Class	Material	Length (cm)						Total
		< 2.0		2.0-4.0		> 4.0		
Side Notch	Mudstone	22	13.8	49	9.0	4	1.9	
	CCS	79	49.7	67	12.3	10	4.7	
	Other	5	3.1	5	0.9	-		
Subtotal		106		121		14		241
Corner	Mudstone	11	6.9	96	17.6	18	8.4	
Notch	CCS	19	12.0	120	21.9	14	6.5	
	Other	1	0.6	-		-		
Subtotal		31		216		32		279
Basal	Mudstone	-		5	0.9	5	2.3	
Notch	CCS	5	3.1	34	6.2	5	2.3	
	Other	-		-		-		
Subtotal		5		39		10		54
Stemmed	Mudstone	4	2.52	40	7.3	15	7.0	
	CCS	11	6.9	45	8.2	22	10.2	
	Other	-		1	0.2	3	1.4	
Subtotal		15		86		40		141
Shouldered	Mudstone	1	0.6	7	1.3	13	6.1	
Lanceolate	CCS	-		8	1.5	6	2.8	
	Other	-		-		1		0.5
Subtotal		1		15		20		36
Lanceolate	Mudstone	1	0.6	30	5.5	61	28.4	
	CCS	-		39	7.1	32	14.9	
	Other	-		1	0.2	6	2.8	
Subtotal		1		70		99		170
Total		159		547		215		921

APPENDIX C

Codes for General Location

and Unnumbered Site Key

Appendix C

Codes for General Areas and Unnumbered Sites

Code	Description
A	Kootenay Point to Boyer Slough Includes site 10BR37
B	Oden Bay; Fisherman's Island to Kootenay Point Includes sites 10BR116, 117, 118, 119, 35, 543, 544
C	Bottle Bay Includes sites 10BR560, 561
D	East end of the Pack River railroad bridge
E	Ellisport Bay Includes site 10BR29
F	Rocky Point Includes sites 10BR528, 529, 530
G	Carey Creek Includes sites 10BR96, 97, 98, 472, 575, 578
H	"The Boat Club" Upstream from 10BR427
I	Harrison, Idaho
J	Plummer, Idaho
K	Hoodoo Creek to Willow Bay Includes sites 10BR10/20, 462
L	"Dog Beach"
M	Island at the mouth of Morton Slough Exposed only at very low water
N	First beach north side of the river and downstream from the dam.
O	Denton Slough Includes sites 10BR546, 548, 549, 550, 551, 552, 554, 562, 563, and 564
P	Grouse Creek
Q	Sunnyside Includes sites 10BR33, 34
R	Albeni Cove Includes sites 10BR290, 437

S Mouth of Sagle Slough
10BR420, 421, 422, 423

T "Gypsy Bay"/Muskrat Lakes
Includes sites 10BR454, 453

U Mouth of Cocollala Creek

V Mouth of Johnson Creek
Includes sites 10BR502 and 503

W Mouth of Carr Creek
Includes sites 10BR506 and 507

X Dover to Hornby Creek
Includes sites 10BR525, 526, 527

Y Above the county shops

Z Unknown

Aa 10BR94 upstream to 10BR74
Includes sites 10BR95, 437, 490, 491, 492, 493, 74.

APPENDIX D

Artifact Catalog from 1985 CRC Survey

APPENDIX D

ARTIFACT CATALOG

ALBENI FALLS PROJECT, 1985

P R E H I S T O R I C A R T I F A C T S

Catalog No.	Site	Material	Measurement (cm) L	W	Th	Description
1	436	Siltstone	10.5	8.0	4.0	Possible core; unifacially flaked cobble fragment. Platform facet has cortex remnant.
2	544	Quartzite	7.0	4.0	1.7	Pink tertiary percussion flake.
3	472	Siltstone	10.0	3.7	1.0	Dark gray, blade-like flake with lateral, primarily unifacial retouch.
4	420	Kootenai Argillite	7.3	3.2	0.8	Bifacially reduced flake.
5	502	CCS				Dark red, opaque modified flake. Unifacially and bifacially retouched.
6	421	CCS	3.1	3.4	0.9	Transluscent orange-red modified flake. Distal edge unifacially retouched.
7	454	CCS	3.2	2.1	0.4	Transluscent tan-brown modified flake. Unifacially retouched.
8	454	Obsidian	1.1	1.3	0.3	Black projectile point mid-section.
9	435	CCS	3.0	2.0	0.7	Transluscent orange-red tertiary flake. Same material as #6.
10	435	Siltstone	3.8	2.6	0.3	Black, coarse grained tertiary flake.
11	456	Quartzite	10.3	6.7	0.9	Coarse grained tabular knife. Bifacially retouched.
12	456	Quartzite	8.9	4.7	0.5	Coarse grained tabular knife. Bifacially retouched.
13	502	Siltstone	6.4	3.9	0.4	Thin, rectangular piece with bifacially modified edges. Rectangular cutting tool?
14	417	Siltstone	7.5	2.5	0.5	Thin, rectangular piece with bifacially modified edges. Cutting tool? Edges are smoothed.
15	509	Siltstone	11.0	5.6	0.5	Thin, triangular piece with bifacially modified edges. One surface is water-worn cobble cortex; striae are visible here without magnification.

Catalog No.	Site	Material	Measurement (cm) L	W	Th	Description
16	96	Argillite	13.0	6.9	1.7	Green, thin, ovoid biface.
17	544	Siltstone	3.9	2.7	0.7	Subtriangular bifacially thinned flake. Retains platform.
18	424	Siltstone	5.41	2.75	1.22	Black, fine grained lanceolate bi-pointed biface. Formed by percussion flaking. May be re-modified fragment of larger piece. One side retains flat, cortex-like surface. Triangular cross-section.
19	424	Siltstone	3.96	2.32	.075	Black lanceolate biface. Coarser grained than #18. Retains platform. Percussion reduced. Bi-convex cross-section.
20	499	Siltstone				Black biface fragment. Percussion reduced. Triangular cross-section.
21	437	Siltstone	5.99	2.20	0.66	Black very slightly shouldered lanceolate projectile point. Straight base, silghtly contracting stem. Made on a triangular cross-sectioned flake with minimum additional modification. Base is not thinned. HL=1.42 BW=1.02 NW=1.72
22	437	Siltstone	5.52	2.30	0.76	Very fine grained, black stemmed projectile point. Base concave, thinned. Stem is very slightly expanding, shoulders are rounded. Bi-convex cross-section, slightly excurvate blade edges, flaking is variable, well-controlled. One face flawed by large irregular flake scar near tip. HL=0.99 BW=1.34 NW=1.26
23	543	Argillite	3.82	2.38	.069	Very fine grained black stemmed projectile point. Base is indented, almost notched. Stem is straight sided, shoulders are well-defined, but assymetric with one nearly barbed. Cross-section is triangular; blade edges are excurvate. Flaking is collateral on one side forming center ridge. Overall flaking is minimal with both faces showing relatively large areas of unmodified surface. HW=.092 BW=1.24 NW=1.29

Catalog No.	Site	Material	Measurement (cm) L	W	Th	Description
24	484	Siltstone	3.2+	3.22	0.60	Black, basal notched projectile point. Base is straight, stem slightly expanding. Corner tangs are nearly aligned with the base and are slightly assymetric. Notches are deep and parallel sided. Blade edges are straight. Flaking is variable. Point snapped distally mid-blade. HW=0.68 BW=1.88 NW=1.71
25	562	CCS	3.67+	2.54	.060	Tan, petrified wood, basal notched projectile point. Same description as #24. Distal blade break is hinged impact scar which extends over most of one face. HL=0.69 BW=1.32 NW=1.24
26	447	CCS	1.53	1.12	0.29	Tan, barely stemmed projectile point. Base is straight as are stem lateral edges. Shoulders are poorly defined, assymetric. Cross section is plano-convex and flaking variable. HL=0.28 BW=6.87 NW=0.87
27	543	Siltstone	2.73+	1.74	0.53	Black, side notched projectile point. Base is straight and thinned. Notches are relatively shallow and low set. Blade is incurvate, flaking pattern variable. Blade has distal hinged impact break. HL=0.47 BW=1.74 NW=1.22

HL = Haft Length NW = Neck Width
BW = Blade Width, Base Width

H I S T O R I C A R T I F A C T S

Catalog No.	Site	Description
28-53	420	Ceramic fragments. One is a small piece of celadon. All are probably fragments of rice bowls as evidenced from their thicknesses and curvatures. The various colors and manufacturing are manifestations of the Three Circles and Dragonfly design also known as Three Circles and Longevity and more recently termed Bamboo. (Wegars personal communication).
54	422	1 clay pipe bowl fragment. This is a white clay fragment measuring 4.1 cm in length, 3.9 cm wide and 0.5 cm thick. A band of parallel lines extends from the lip of the bowl for 0.5 cm.
55-62	546	8 ceramic fragments that have the same appearance as those found at 10BR420 and described above.
64-65	551	2 ceramic fragments. One is celadon and the other appears to be of the Bamboo pattern as described above.
66	518	1 light blue glass "seed" bead < 0.3 cm in diameter.
67-71	16	4 glass beads and 1 glass bead fragment. These are wound beads, three of which are less than 0.3 cm in diameter. The larger bead is 0.4 cm in diameter and is white. The three smaller beads are red, aqua, and light blue respectively. The bead fragment is a bright blue. These beads were given to CRC by an individual who was collecting artifacts while the site was being recorded.

APPENDIX E

List of Persons Contacted

APPENDIX E
LIST OF CONTACTS

Colleen Atmore, Bonner County Historical Museum, Sandpoint, Idaho

Pam Aunan, Bottle Bay, Sagle, Idaho

Keo Boreson, Archaeological and Historical Services, Eastern Washington University, Cheney, Washington

John Coyle, Albeni Falls Dam, Priest River, Idaho

Marjorie Glazier, Laclede, Idaho

Stan Gough, Archaeologial and Historical Service, Eastern Washington University, Cheney, Washington

Tom Green, Idaho State Archaeologist, Boise, Idaho

Kermit Kiebert, Hope, Idaho

Jeff Kohal, Sandpoint, Idaho

Mary Nelson, Laclede, Idaho

NIRAC - Leo Flynn, University of Idaho, Moscow, Idaho

Dave Osterberg, Rathdrum, Idaho

Virginia Overland, Sandpoint, Idaho

Earl Perins, Priest River, Idaho

Eunice Perks, Sandpoint, Idaho

Duane Peterson, Selle, Idaho

Warren (Chuck) Peterson, Hope, Idaho

Jean and Willard Piehl, Sandpoint, Idaho

Nancy Renk, Sandpoint, Idaho

Dennis Roubicek, Sagle, Idaho

Bob Sawhill, Sandpoint, Idaho

Cort Sims, Idaho Panhandle National Forests, Coeur d'Alene, Idaho

Roderick Sprague, Laboratory of Anthropology, University of Idaho, Moscow, Idaho

Ray and Bob Stutzke, Kootenai, Idaho

Ruth and Joe Sutton, Sandpoint, Idaho

Ward Tollbom, Sandpoint, Idaho

Priscilla Wegars, Moscow, Idaho

John Weisz, Dover, Idaho

Jean Wright, Laclede, Idaho

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